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The AMERICAN JOURNAL of
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FEBRUARY 1912

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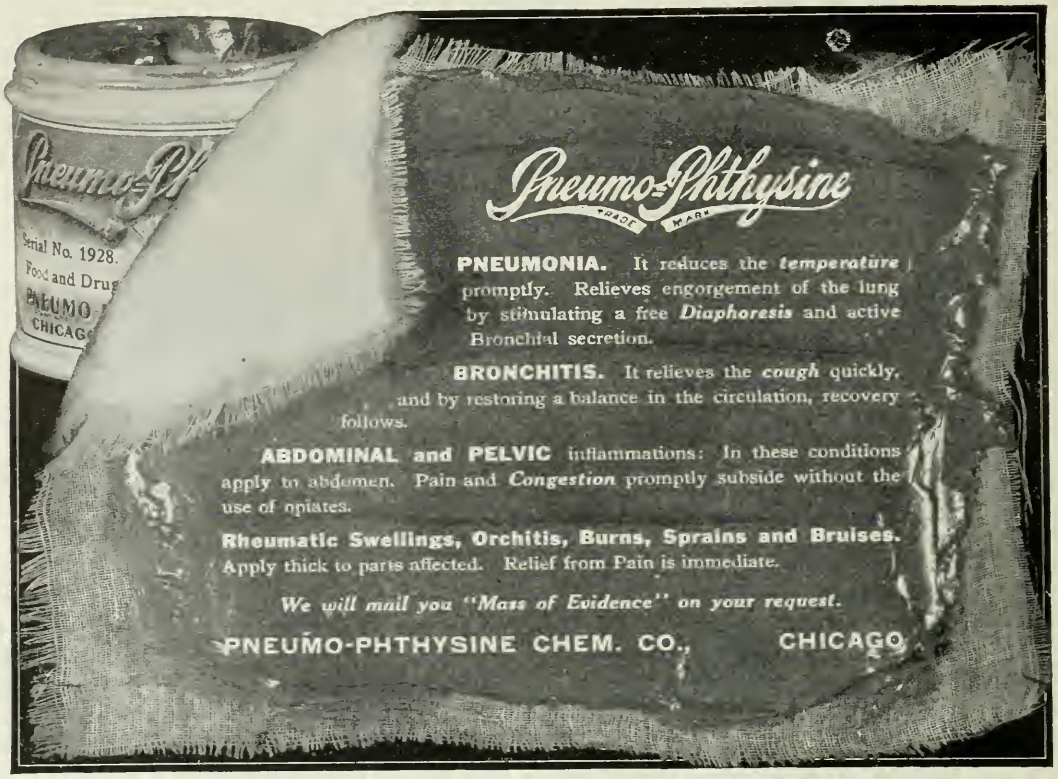
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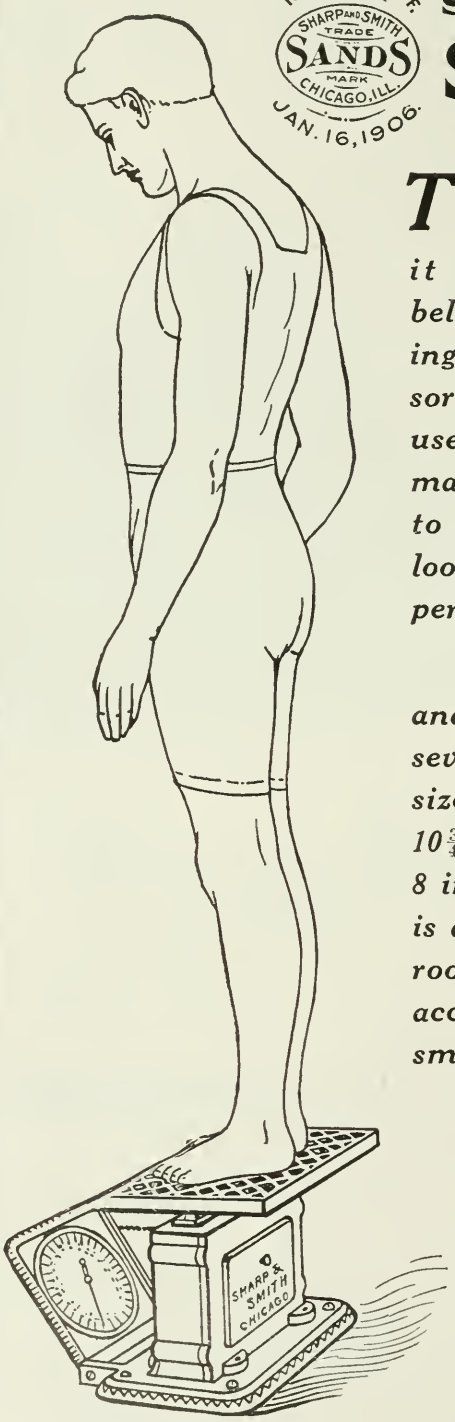

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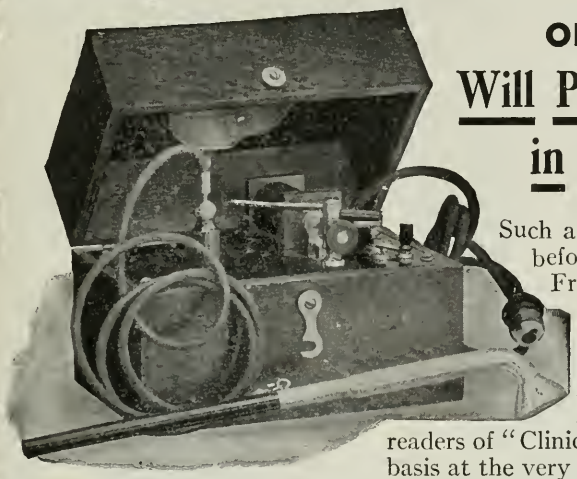

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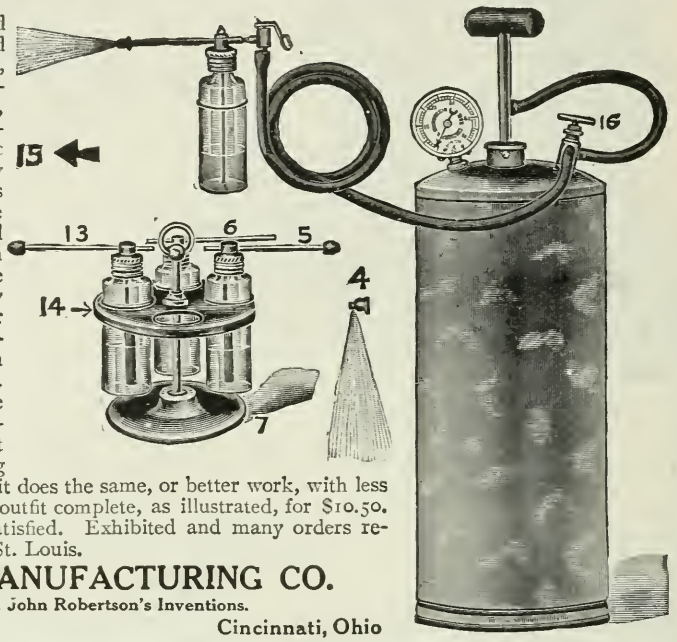

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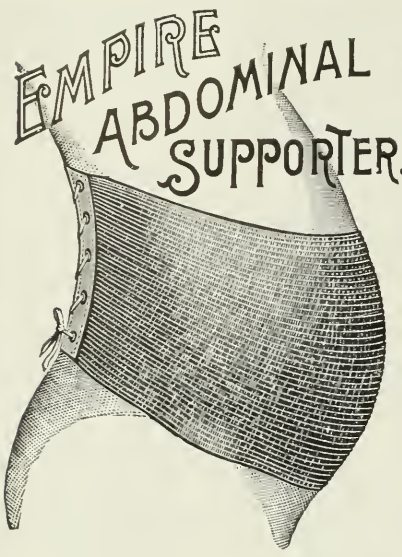

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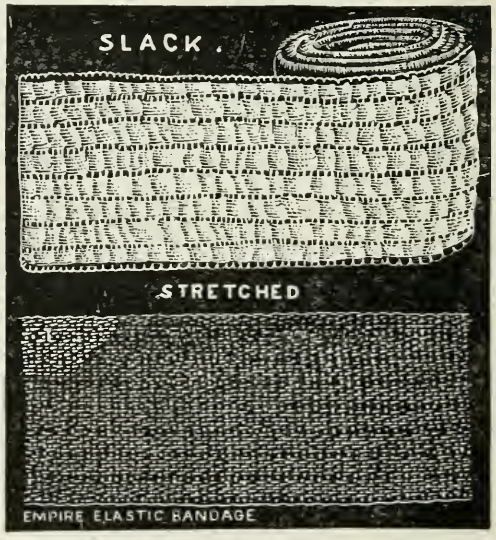

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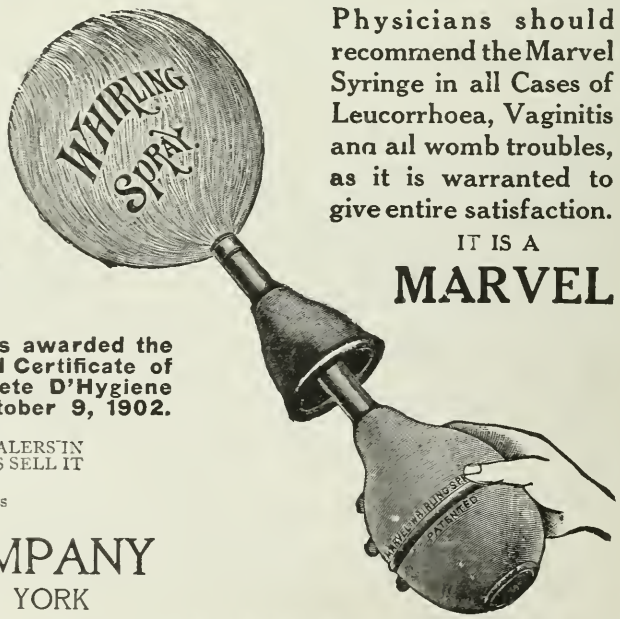

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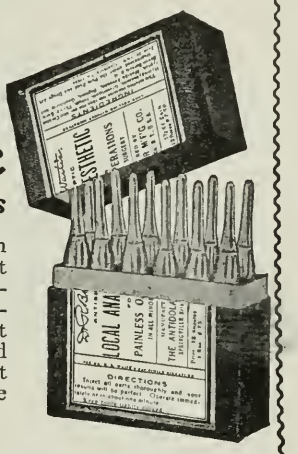

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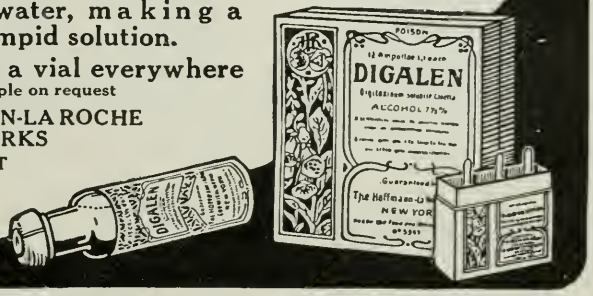

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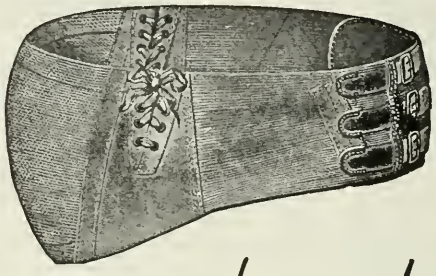

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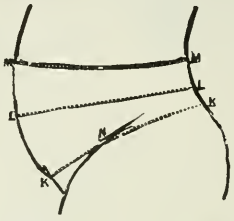

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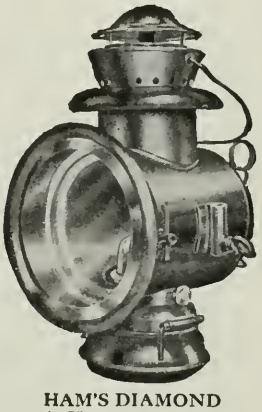

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The American Journal of Clinical Medicine

Vol. 19 FEBRUARY, 1912 No. 2

The Reign of Crime

JUST now the papers have a great deal to say about the wave of crime sweeping over Chicago, and of the congregation of crooks in our city. These pessimistic statements, however, must be taken with a grain of salt. The average Chicago newspaper scribe is quite prone to exaggerate the wickedness of his own city—as a thing for pride; like Carlyle's woman who bragged that the dentist had more trouble extracting her teeth than with any other in the village. But let anybody speak of anything good done by a Chicagoan, and the pendriver will seek to excuse it.

Nevertheless, there *is* a good deal of crime in and about Chicago, far more than there should be. And the reasons are obvious! In the first place, Chicago is a big city, the last census giving her a population of 2,185,283. Only sixteen states in the Union can boast of more; about as many as are to be found in California, Iowa, Kentucky, New Jersey or North Carolina; more than in Alabama, Minnesota, Tennessee or Virginia; more than are enumerated in the nine commonwealths of Alaska, Arizona, Delaware, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, combined, the sum of whose populations would not equal that of Chicago by 84,017—enough in itself to fill a city like Peoria, with some to spare. Is there more crime in this city than in those last-named nine states, taking into consideration that here all misdeeds are known, while in the scattered homes of those communities much wrong doing goes unrecorded?

Chicago's population is cosmopolitan. Immigrants from every country of Europe and many from Asia and Africa congregate here. Most of these people have grown up under parental governmental systems and are accustomed to the restraints and the protection of the "authorities." Freed from the one, it is but natural that the young and the unprincipled should try out the limits of their new liberties, and go to excess therein. In the crowds of such unmatured citizens the swindler also finds his prey, since those people have been accustomed to protection, and it takes time for them to realize the other ideal—that of the self-protecting, self-helping, self-respecting individual. Time cures both these evils, but meanwhile fresh swarms crowd in, to meet the same difficulties and undergo the same rough but salutary developmental experiences. Respect for the rights of the individual property owner comes to him who himself has accumulated property. The recently landed immigrant is emphatically "raw" material; but in a

few years he has "wised up" and is not so easily victimized.

Besides this, we must admit that there has been, for years, a gradual lowering of moral standards, a lessening of the sense of moral responsibility, among many of our people. This may be summed as a lowering of the once universal respect for law. The reason for this may be briefly put as the belief now current that law is less worthy of respect than our fathers deemed it.

The popular conception of "law" makes it synonymous with "justice. This is the basis of that respect for and submission to law that forms the foundation of society. In so far as men put faith in this conception, the social order is established, and property and individual rights are respected. But the courts and the bar know very well that this conception is erroneous.

Law really recognizes and is founded upon the battle for existence. Statute law seeks, not to compel men to be just or to secure to the weak the protection against the strong, but to establish the rules under which men may prey on each other and carry on the struggle of life. The great lawyer is not he who protects the widow and orphan and maintains the right against aggression, but he who best devises the means of evading the statutes and enabling his clients to possess themselves of the property of others without suffering any penalty. As this bald fact is comprehended, men lose their faith in law, are loosed from their moorings, and are set afloat on the sea without rudder or compass.

The average human mind is simple in its reasonings, direct in its conclusions. It does not consider the subtleties and sophistries by which greed seeks to excuse itself. The simplest propositions have ever appealed most powerfully to the heart of man, and the Decalog, the Golden Rule, the Beatitudes have won assent and heart-felt support because they were easily understood and appealed to the underlying sense of right that every man possesses. But—

Take this case. A man has a valuable property, from which he is getting a good return, but not as much as he might have were the property developed. To him comes a minister of the gospel, as emissary for a wealthy friend, who proffers the owner a huge loan, with the assurance that it will not be called. The money is expended in developing the property, and then the loan is called, foreclosed, and the property passes into the hands of the lender. His influence in financial circles is so great that other moneyed men dare not interfere between him and his victim.

Present this case to the ordinary youth, and he decides it swiftly—"Ah, gee! You make me sick! Let's do something decent —go out and stick a man up and take his roll!"

Here we have the influence that is poisoning the morals of our youth, destroying the respect for law on which the possession of property rests, and multiplying the numbers of thieves, robbers, burglars, and other criminals that prey on their fellow men. When these men point to the illustrious examples in high financial circles, and assert that law is a net that catches the little fish and lets the big ones escape, what answer are we to make? How inculcate moral lessons in the face of these truths?

The remedy does not lie in more stringent laws or in heavier penalites. They have been tried and did not succeed. Draco failed. Transportation of criminals failed. Severity defeats its object. During the Napoleonic Wars England was so hard put to, to secure enough sailors for her fleets, that impression was prevalent. A fisherman was met by a press-gang, knocked down, carried off to a ship, and his young wife and babe left destitute. Going, while starving, to a grocer's, she picked up a loaf of bread; but seeing that she was observed she laid it down again. That was all—they hung her for it! Still, such severity did not prevent crime.

We come back to the one only remedy, the cultivation of individual morality, of principle, of character. The stern, unyielding principle that compels one to do right, not because of any expected reward or to avoid punishment, but simply because it *is* right, is the one firm rock that lifts above the flood. It is the rock upon which we must build.

If he live a life of scrupulous honesty, so that it can truthfully be said, when death approaches, that he has never, knowingly, taken wrongfully, a penny of his neighbor's goods, or wronged him—and whatever may be his creed, that man may await the final summons with equanimity, unafraid. By his example he has done his part in helping others to withstand the principles of evil and to encourage the good. He has aided Hormuzd and opposed Ahriman; has arrayed himself on the Lord's side, the side of Right and of Justice.

But this must be no mere pretense, no mere outward seeming, no hypocritic semblance of rectitude. Men are wonderfully clear-sighted and quickly detect the wolf under the sheepskin. He who puts on the livery of Christ, to serve Satan, debases himself and throws a slur on every true man. Again the robber looks with virtuous contempt upon him who adds treachery and deceit to dishonesty.

Character building is a matter of time and of habit. Any man may improve his own moral character by systematically judging every act by its moral aspects, and making it a habit to adhere closely to the right. Scrupulous honesty in trifles leads one to honesty in large affairs and begets that habit that is character. Draw the widest possible difference between character and reputation, and, yet, the one may be cultivated as successfully as the other.

It is easy enough, when one seeks to consider matters, the moral aspects of which are evident at a glance; but there are many instances where the true path is obscure. Many times the wrong appears in such a shape that it seems almost a duty to choose it. An instance: Many years ago, when the writer was a freshman medical student, one of the faculty put this question to the class: "Suppose a man had impregnated his own daughter; the chances being that the child would be idiotic—would you consent to perform an abortion, considering the awful results of a disclosure?"

In such cases the answer is easy—apply the test of publicity, and do nothing you would be unwilling to have printed in the newspapers: That clears away the specious argument, and places matters in their true light.

The Golden Rule is a divine maxim by which to regulate one's intercourse with his fellows—provided the others adopt it as well. But there is this to be kept in mind—that one may well live up to it oneself, but look out for the others who do not. Modern business is too often conducted on the Spartan system—it is right to steal provided you do not get found out. Successful treachery is too often condoned with the plea that the victim had no business to allow himself to be deceived. "Let him be more careful next time. The world has no place for a fool." Give us clean business—the "square deal."

Be just and fear not, for this world or for the next. Treat your neighbor as you would have him treat you, but do not assume that he is going to treat you right. Better so manage that he will do so, for his own best interest; or, better yet, so that he can not do otherwise. Do not hire a man for less than he is worth or can live on and then give him a chance to embezzle your money. Do not rent an unhealthy house to a negro family, compel them to pay even while disabled by consequent illness, and then leave your your chicken-house unguarded.

That man is not guiltless who, by slack business methods, tempts his brother to dishonesty. *Be honest, be true, be square!*

The big stake (however you spell it) always goes to the man who can put up the biggest fight, and stay in it.

SALVARSAN IN MALARIA

When salvarsan burst upon an astonished world as that almost incredible remedy which, by a single dose, forever-and-ever-Amen, eliminated from the system an infection that some of the highest authorities in medicine asserted required four years of medication with the most active alteratives known to the profession to cure, and others, equally eminent, asserted that even then it could not be eradicated, we were simply stunned.

Even though more recent and conservative reports limit the application of the remedy and abate somewhat the enthusiasm of its advocates, it still remains as the most notable addition to therapeutic re-

sources that has occurred in centuries, and possesses an efficacy which confounds the pessimist and drives the conservative into the ranks of his erstwhile radical opponents. Even the occurrence of an occasional death, such as Gaucher reported to the Paris faculty of medicine last October, detracts but little from the value of the remedy; for what is an occasional death of a syphilitic compared to the instantaneous and radical extirpation of the disease in many others, and the possibility of the extinction of the malady by the consequent limitation of the infection, as more and more syphilitics are brought under the influence of salvarsan?

No sooner is a decided advance made in any department of human endeavor, than efforts are made to advance the lines generally, so as to come in touch with it, and to correlate other known facts, so as to develop from the idea the utmost good which can be extracted from it.

Since organic arsenic proves thus effective in syphilis—a disease dependent upon an animal parasite—we at once recollect that another form of organic arsenic, atoxyl, has proved similarly effective in the treatment of another parasitic affection of man, namely, trypanosomiasis. It also brings to mind the fact that, without any speculation on the power of arsenic as a remedy in syphilis (a suggestion which had never been made) we had unconsciously developed a decided preference for the iodide of arsenic in the treatment of this malady. And this predeliction had been confirmed by clinical experience extending over more than fifteen years, during which we had found decided advances in our results of treatment following the addition of this active salt to the other remedies used in syphilis.

Still further, for a century at least arsenic has ranked next to quinine in the treatment of malaria, in which case also an animal parasite is involved. If so, why not, then, try organic arsenic in malaria? This, indeed, has been done to some extent.

Iversen, and Tusphinski report their use of salvarsan in sixty-one cases of various malarial affections. The remedy was administered intravenously and intramuscularly, the first dose by the first-named method being half a Gram, the second, intramuscularly, being three decigrams. They found that salvarsan asserted a specific action over every variety of malarial parasites. It was especially serviceable in the tertians. In quartans, however, the beneficial effect was not permanent. In tropical forms a temporary disappearance of the rings from the blood was secured. The crescents did not disappear, but were temporarily modified. In some of the later cases a distinct turn for the worse in the patient's condition occurred.

There were evidences of effect, but not so striking as was hoped. The way is open for plenty of experiments, however, since it is exceedingly likely that other forms of organic arsenic may do still better. In the meantime brilliant and permanent effects follow the use of quinine arsenate in all forms of malaria.

Good thoughts, though God accept them, yet toward men are little better than good dreams, except they be put in action.—Lord Bacon.

By the way, have you renewed your subscription?

IS DRUG IDIOSYNCRASY DUE TO ANAPHYLAXIS?

In an unusually interesting review of the therapeutic progress during the year just closed, Dr. Paul Carnot, in the *Paris Médical*, speaks of the recent attempts that have been made to explain certain phenomena of hypersensitiveness to drugs (long known as symptoms of idiosyncrasy) on the theory that they are of an anaphylactic nature. Such unusual symptoms sometimes occur after a first administration of a given remedy, very much as the untoward effects following in the wake of serum injections, and are at other times more severe on subsequent applications.

Symptoms of idiosyncrasy have been observed and investigated from this point of view, expecially with regard to iodoform and antipyrin, although harmful effects after repeated doses of other drugs, most particularly of arsenobenzol ("606") have been explained in like manner. Carnot very properly cautions against drawing too hasty inferences, saying that there is a tendency toward explaining everything by

anaphylaxis, which is, itself, by no means as yet fully understood.

In this connection we are reminded of a paper by Dr. H. N. Cole, printed in *The Cleveland Medical Journal* for May, 1911, on drug exanthemata in relation to anaphylaxis. Dr. Cole there discusses the experiments published by Bruck and by Klausner, the former of whom considered drug exanthemata to be anaphylactic reactions, since he had been able to reproduce the condition passively in guinea-pigs by injecting serum from patients with drug-rash.

It is to be noted, however, that Klausner differs somewhat from Bruck in that he denies idiosyncrasy to drugs to be a true anaphylactic phenomenon in which a previous introduction of an alien antigen is required. He believes that drug-rashes are a reaction of hypersensibility of the organism against a substance which, of itself, has a toxic action. This hypersensibility would correspond with that against the toxin of limpets and the active substance in crab and fish meat. This hypersensibility can be transmitted passively to animals. Klausner considers it as a congenital peculiarity of the human serum.

Cole reports some instructive experiments of his own, which, however, also failed to establish the anaphylactic nature of the reaction that may follow injections of nonprotein substances. He grants that certain people are very susceptible to certain drugs, but considers it a long step to call such a susceptibility an anaphylaxis.

Our knowledge of the real nature of anaphylaxis is as yet too incomplete to permit definite conclusions. While Cole's objections, which have also been raised by Klausner, are justified, namely, that in drug-rash we have to deal with nonprotein substances, it has not yet been proved that phenomena that are at least allied to anaphylaxis may not be produced through the action of certain vegetable and animal substances.

This interesting problem is being studied by several investigators, especially in relation to hay-fever. The idiosyncrasy which some people exhibit toward certain foodstuffs (strawberries, crab-meat, eggs, etc.) also requires further investigation, and is, we believe, more likely to be explained as an anaphylactic symptom, at least in the case of idiosyncrasy toward food-stuffs of animal origin.

When a doctor can not learn anything new by watching others at work the clock has struck twelve for him. Some men at thirty-five reach the summit of their mental development, while other men are receptive at seventy. It isn't the age that counts.—Dr. Wm. J. Mayo.

A SANITARIUM FOR PHYSICIANS—WHY NOT?

In our December number we called attention to the efforts being made by Dr. Eugene F. Cordell and his wife, of Baltimore, to establish a home for the widows and orphans of deceased physicians. (Dr. Cordell, we want to say, though, is very much alive—not a bit dead, as was suggested in that article.) Here is one of the most worthy charities that we know anything about, yet its promoters are having considerable difficulty in securing the small amount of money needed to make it a success. I wonder how many of the readers of CLINICAL MEDICINE have gone down into their pockets to help? Have you? Or you? Or you? Have you no personal interest or feeling in this matter, doctor? It is a privilege to help, a duty—and *your* family, some time, may stand in need of the aid that such an institution can give.

The medical profession, in spite of its numerous organizations, does almost nothing for the economic betterment of its members. Isn't that true? Think it over.

So far as we know there is not in all our country a single institution for the relief of the disabled physician or his family. The trades unions provide better than we. The International Typographical Union has a splendid institution for its tuberculous members in Colorado, and it is generously supported by voluntary contributions and assessments. The fraternal organizations certainly look after their own. Think of the fine "homes" maintained by the Masons, the Odd Fellows, the Modern Woodmen, and other orders. There are special homes for clergymen, for sick sailors, and doubtless for plumbers, carpenters, butchers; there even are endowed institutions for the relief

of sick dogs and cats—yet not a single place to which the worn-out doctor, who has given his life for others and been unfortunate in money matters—often through the bigness of his own generous heart—can turn when disease lays him by the heels or the shadows of advnacing years gather round him.

Only the other day we received a letter from a good doctor in the South, a man of exceptional ability, a cultured gentleman, who now, in his seventy-seventh year, half paralyzed, half blind, is absolutely penniless. He didn't come to us begging for alms. He just wanted us to understand why he could not continue his subscription to "the dear old CLINIC"—which he loves even as you and I love it. We get letters like this every week, and we can understand the terrific burden that some of our brethren are carrying, perhaps even better than you, who may be their nearest neighbor.

Did you read that editorial about Dr. Matthews' book "The Lute of Life," last month? Here is another instance in kind. A scholarly gentleman, a friend of Riley and of our own dear Dr. Cooper, an able practitioner, yet he died poor, just because his own heart was so keenly sympathetic in the face of suffering that he could not "collect" what was rightfully his own, and the dollars in his own pocket went for the relief of the unfortunate. Financially, a failure, to be sure; but in the larger sense, what a tremendous success he was! What of men like these? Has the profession no duty toward them?

It is high time that some national movement were instituted for the relief of aged and disabled physicians. A number of institutions should be established, located in different portions of the country. The American Medical Association should take the initiative in founding them. It already has a large surplus, amounting to more than $100,000 in quick assets, which are immediately available, while the profits from the publication of *The Journal* are more than $50,000 annually. This body could, if it would, devote at least $100,000 right now, to the construction of two institutions, one east and another west or south; and then one other could be added each succeeding year until every section of this country was supplied. The profession would rally to the support and maintenance of these refuges.

CLINICAL MEDICINE pledges the hearty financial support of its staff and its clientele to an undertaking of this character. Years ago Dr. Abbott worked out a plan for such a series of institutions, and it has always been his intention and his hope to help put it into execution. His heart is in it.

The average doctor is not a rich man. His annual income is said to be in the neighborhood of $700. It is only by getting together, by helping one another, that the welfare of the majority can be increased and the misfortunes of those for whom the battle has been too hard can be relieved.

Shall we continue to let things drift, as they have drifted—or *shall we do something?* Write us exactly how you feel on this subject. We want to hear from everybody. We will give ample space for the discussion of this most important question.

The habit of clear thinking is less common than it should be. A distinct idea of the disease enables one to prescribe with a distinct idea of what the remedy is to do.

"GRANULES" ARE OFFICIAL IN FRANCE

I have just been looking through the latest edition of the French Codex ("Pharmacopeia" we call it here), and I was much pleased to see that the granules are made official by that authoritative work. The following definition appears: "One designates under the name 'granules' the little pills of a weight of from three to five centigrams." We are also informed that the granules are prepared "with gum acacia and powdered sugar of milk" and that they contain either a milligram or a tenth of a milligram of the active ingredient."

Among the official granules are those of aconitine and aconitine nitrate, each containing one-tenth of a milligram (1-640 grain). This is noteworthy, in view of the repeated iteration in American textbooks and journals that "aconitine is dangerous"

and should not be used internally. What an absurd statement! Our French brethren know better (as do fifty thousand intelligent *American* physicians) and the rational employment of aconitine has been officially recognized by the Codex.

Other official granules are those of *digitaline cristallisée* (digitoxin), strophanthin, atropine sulphate and strychnine sulphate. While the list is not long, it is sufficient to show the trend of the times, in Europe as in America.

The doctor of the future will use alkaloids and other active principles wherever he can secure them in their purity and in a form suitable for administration—and the granule is the ideal form.

By the way, have you ever heard of a physician who has once become thoroughly accustomed to the granule form going back to tinctures and infusions?

"A little toil and a little rest,
And a little more earned than spent,
Is sure to bring to an honest breast
A blessing of glad content.
And so, though skies may frown or smile,
Be diligent day by day;
Reward shall greet you after awhile
If you just keep pegging away."

Nixon Waterman.

EUTHANASIA

Some months ago the attention of the public was attracted by a remarkable occurrence in Florida. In a community of Shakers one of the members was dying of tuberculous consumption. All hope of recovery being past, and life being one continuous and unbearable torment, at the woman's urgent request she was killed by means of chloroform. The members of the community who did the thing were threatened with prosecution for murder, of which they were technically guilty. They calmly admitted the deed, and added that under similar circumstances they would do the same thing again. Public sentiment upheld them, and no legal reprisal was taken. The incident aroused some discussion over the right and propriety of taking life under similar circumstances. The orthodox view is, of course, that no such right exists; and public policy requires the acceptance of this dictum.

The taking of human life must only be done under certain circumstances, under due process of law, as when, for instance, a jury of one's peers condemns the offender to the forfeit. But laws differ widely in various lands. There has been a steadily progressing limitation of the crimes for which life may be legally taken, since Draco decreed the death penalty for every offense, however trivial. Yet as late as the Napoleonic wars, England hung a woman for *intending* to steal a loaf of bread, under circumstances so trying that people nowadays would have commended her and hung her judges. The woman's husband having been impressed, and dragged aboard a ship for sea service, leaving her helpless and starving, with a nursing babe, the woman took up a loaf, but seeing she was observed laid it down. That was all—they hung her for it.

The killing of the aged, infirm, and diseased is characteristic of the earlier stages of the development of communities, and is justified by the plea of necessity. Before condemning it utterly, one must recollect that that same stress of necessity has forced the most highly civilized and cultured of our own day, under sufficient stress of circumstances, to the point of killing and eating their fellows. Let no man rush to swift condemnation, until he has placed himself in the culprit's place in so far that he can realize the latter's motives and temptations.

Differences in religious belief were until quite recent times held to justify legal murder. and this was pushed so far as to occasion the publication of treatises that proffered explanations of the cruelty of the priesthood. Wars offer the most striking examples of legalized homicide today, and when we see Italian and Turk rushing to slay each other, and reports creep out of the wholesale sacrifice of women and children as the lust of slaughter breaks loose, we ask whether our civilization is at best more than a very thin veneer, covering the abyss of brutality, as the earth's crust covers the internal chaos.

Beyond the instances in which human life may be taken legally there lies a debatable ground where public sentiment

rules, interpreting, modifying, twisting, perverting, and defying the statute law in accordance with popular feeling. The unwritten law justifies the destroyer of woman's honor and disrupter of families. Self-defense is an elastic plea. The heroic names revered by mankind and held up to the emulation of youth are mostly those of murderers, that is, of those who have taken human life illegally, even though heroically. Tell killed Gessler by what was legally a murder. Harmodius and Aristogeiton were no better—legally. Sevagee founded the Mahratta state on the murder of the trusting Afzool Khan. Either Brutus or Scaevola—nearly every notable saver of his country—could have been convicted and executed under the law. Holy Writ affords many examples, such as the assassination of Sisera by Jael under peculiarly atrocious circumstances.

Coming down to the case of the Shakers, it is evident that only condemnation must be the verdict. Who is to render the decision that any disease is incurable or voluntary death justifiable? No law, no creed, places such power in the hands of any human being. It is but a sophism that pleads the existence of a superstitious veneration for life, and ignores the certainty of death within a brief period. Life comes unsought, and its extinction may well be regarded as beyond the privilege even of its possessor.

But come down to particulars: A doctor found himself dying of gastric cancer. Every conscious moment was one of unbearable agony. The diagnosis was certain, the highest authorities of the day had so pronounced, and expressly decided that no remedy was to be had. Life was only possible while consciousness was extinguished by drugs, so the man made the temporary unconsciousness permanent by a lethal dose.

Do you blame him?

Still worse—suppose you sit by the bed where lies the wife of your youth, dying by inches in the tortures of disseminated, inoperable cancer; life rendered bearable only by morphine narcosis; death inevitable when agony had worn out vitality. What then?

Even so, the path of duty leads not to euthanasia, but only to renewed effort in the search for means of cure. The atrocious tortures of cancer, the long-drawn-out death by inches of the tuberculous, the ghastly distigurements of lupus and leprosy, the swift and deadly stroke of Azrael's sword, ycleped croup, meningitis or eclampsia should arouse in us the determination to tackle anew the task of unraveling their mysteries and developing their remedies.

Voluntary death may stop the pangs of the afflicted, but it leads to nothing. It is sterile as well as cowardly. Nothing hopeful is yielded by it, in the way of preventing the evil in others, or finding a cure. But the greater the horror men feel for the disease, the more powerfully they will be impelled to seek for relief. This is the vital objection to euthanasia, and not the stopping of a life for which no hope remains. To put an end to a life of torment, a life impossible except with unconsciousness, is merciful; and the welcome sacrifice of a few useless, meaningless days of agony does not weigh against the call of mercy.

In due time we shall see some man who, suffering with the pangs of cancer or still more atrociously tortured by the sight of his loved ones similarly afflicted, will bend all his energies to the solving of this problem. He will gather the scattered threads, collate the pathologic investigations, group the hypotheses and the proposed remedies, and proceed to eliminate the false leads, until by exclusion he must arrive at the one true path.

He who does this will soon find promising material. He will see by the Chicago observations that people who consume meats in conglomerate form—sausage, canned hashes, which allow utilization of qualities unsalable in natural form—are enormously more prone to cancer than those who live mainly on vegetables. He will meet the tomato, the cider, the tree-tumor, and many other hypotheses, each proffered with a show of plausibility. Some of these may have been definitely demolished, but the proof has never reached the body of the profession, much less the public; and these

ghosts remain to perplex the searcher and distract his attention from the true path.

In the field of therapeutics the same thing presents itself, only infinitely more complicated. The red-clover, thuja, phytolacca advocates press their claims with the confidence of ignorance, confusing the matter by shifting the base, and applying the term cancer to so many nonmalignant conditions that they delude the public with a fair showing of cures and prevent any fair estimate of the real value of their remedies.

But the worst difficulty is the refusal of the profession to consider any remedy unless it is "new." They will rush tumultuously to apply the suggestion that the x-ray will cure cancer, before a solitary trial has been made, before we have learned what it is or what it can do, but they will refuse to listen to the evidence favoring condurangin or to consider the astonishing results of its use by really scientific practicians.

The only avenue for advance is by the process of exclusion. Remedies ponderable and imponderable, electricity in all its forms, Coley's serum, Clay's turpentine emulsion, red clover, condurango, organic arsenic, crotalin, chromium, each, all and every one, should have due consideration, and be so completely tried out that no possible excuse remains for ever bringing them back if found worthless. In this way alone can the remedy be found.

After all is said and done, the duty of the physician is to save life, not to take it, and until the last sighing gasp shows that the Great Mystery of existence is about to be solved the doctor's efforts should be directed toward relief, yes, and cure—for it may be his great privilege—yours—to bring those adjudged beyond hope back again to life.

SUN YAT SEN

The remarkable revolution in China, which is apparently transforming that slumbering giant of the nations into a republic, was undoubtedly inspired by our own "experiment" in self-government. This fact, however, is significant and a reason for hope: Behind it is a *man*—this man a quiet, insistent, self-contained and constantly acting *power*. Sun Yat Sen, the recently elected president of the provisional republic, is a physician; more than that, he is a Christian physician. To him, more than to any other individual, is due the great upheaval which threatens to drive the Manchu from the throne.

A brief study of the life of Sun Yat Sen helps us to understand the character of the revolution. He was born forty-four years ago in Heung-Shan, and is the son of a farmer who had been converted to Christianity. In his boyhood he went with his mother to Honolulu, where an elder brother was in business. There he attended mission schools, and finally studied in an American college. Thus he became familiar with the English language, which he is said to speak fluently, and this explains why he is conversant with the ideals and spirit of American institutions.

Sun Yat Sen then returned to his native land, where he took up the study of medicine. After five strenuous years he was graduated from the Hong-Kong College of Medicine for Chinese, and his diploma (the first of the school) was handed him by Doctor Kerr, the American missionary who was at the head of this institution. Whether he was ever actively engaged in practice we are unable to say.

During his student days Sun Yat Sen became interested in the reform movement, and was one of the leaders of the organization in Hong-Kong. At that time a small group of educated young men banded themselves together to work for emancipation from the thoroughly corrupt Chinese dynasty. The natural force of character of the young medical student made him the leader of the local, and later of the national, movement; and he has held that position ever since.

He traveled. He visited Chinese colonies in London, San Francisco, Burma, the Straits Settlements,—all over the world. Very quietly but very surely he built up a chain of devoted adherents to the cause, the power of which we can only faintly realize. In so doing he came within the ken of the Imperial Chinese government, and a price was set upon his head, said to be the largest ever offered for the arrest of a

human being. But his disguises were impenetrable, and his friends too true to be susceptible to corruption.

As *Current Literature* says, "the foundations of his campaign have long been solidly laid upon four cornerstones—unselfishness, patriotism, courage, capacity." He is "a sincere and humble-minded Christian, who translates into action the teachings of the Sermon on the Mount," and his religion is not of the theologic but rather of the practical type. "My brothers," he said to a meeting of students, "applied, practical Christianity is our true need."

Sun Yat Sen is not a "magnetic man"; he is not an orator; he seeks no personal publicity, but rather avoids it. It is the candor, the unselfishness, and the fervor of his spiritually minded personality which have inspired his followers.

With such a man at the head of this revolution—a man of our own clan—clean, constructive and patriotic—assuredly every physician in America will desire the triumph of Dr. Sun Yat Sen, and the Chinese republic, of which he is provisional president.

When that obscure missionary, who, years ago, was scattering the seed of his faith in a distant Chinese province, reached the heart of Sun Yat Sen's father, how could he realize the tremendous fruitage which his efforts were to bring forth? The work of American missionaries may eventually result in a greater China, not a "yellow peril," and the transplantation of the best of our civilization to an old yet fertile soil, where it may bring forth even more perfect flower than in our own.

When you feel your nerve giving away it's very apt to be because you are thinking too much about yourself.—Austin Woodward.

THE LEISURE HOUR

Youth has no leisure—except in early morning. He drives throughout the day, at sport or work, eats his evening meal with an appreciation and voracity that excite our envy and apprehension, lolls about until digestion is well along, and just as we grow drowsy, dons hat and coat and sallies forth for amusement—underlying which, unconsciously to him, is the instinct of mating.

But along in years comes the time when the struggle of life, the uproar of battle, the shouts of the soldiers, the neighing of the charger, the strain and tug of thew and sinew, the thrust of sword and the impact of axe or mace on shield and helm begin to pall on one. Then is the time when home grows dear; when throughout the day of toil is ever present the vision of the cosy den, the easy chair, loose slippers and gown, the companionship of the *alter ego* or the better half, the browning pipe, music, laughter, children's prattle, and a book.

"Not from the grand old masters,
Not from the bards sublime,
Whose distant footsteps echo
Through the corridors of time."

Just a book; one you can pick up, divert your mind with and drop when you choose without losing the thread. What a treasure was the elder D'Israeli's "Curiosities of Literature"; and Hamerton's "Intellectual Life." The anthologies are different, yet fill a place close by, and also serve to introduce many an author, hitherto unknown to us, some of whom we desire to know better. What a pity Dana's "Household Book of Poetry" has gone out of print. No other collection compares with it.

A happy chance has thrown in my way a new resource in this line, in Frederic Rowland Marvin's "Companionship of Books." Simply charming! So much to my taste that I got his "Flowers of Song from Many Lands," and "Christ Among the Cattle." Now my library is enriched by two new volumes from the same graceful pen—"Excursions of a Book-Lover," and "Love and Letters." In the former we gossip of Books, An Old-time Bibiophile, The Man of Genius, and eight similar topics, among which a most appreciative chapter on "The Physician and His Work," especially interests us. The other volume treats of "Love and Letters," "The Good Neighbor," "Silence," "Noble Deeds of Humble Men," "The College and Business Life," "Old Age," "Culture," and "Vicisti Galileae."

I haven't read them all—I am spinning them out as long as possible, to make them

last longer. The volumes are published by Sherman, French & Co., Boston, at $1.50 each. What a beautiful remembrance for the man who would appreciate such books.

When one begins to give a remedy for a purpose and to watch till the purpose is fulfilled, there follows a certain sense of satisfaction, and of power, that makes the practice of medicine a divine art indeed.

"THE MASTER OF THE HOUSE"

The drama is not a sermon; yet it should teach the right and inculcate morality. It is not a school, yet it should be instructive without being pedagogic. It is not a burlesque, yet it should be diverting. In truth, it is all these, and more. True, live drama is essentially satire. From Aristophanes, Ben Jonson, Sheridan, Shakspere, to the present it has held the mirror to the humanity of its day that in its reflection might be recognized the follies and the faults that prevailed, in such a manner that the impulse arose to correct them.

The Greek portrayed the venal philosopher who sought his own selfish ends under the cloak of a pretense at the public welfare. In The Alchemist "rare Ben Jonson" depicted the silly fool who allows himself to be cheated by the most transparent devices. Lear carries a lesson for all times and all men. In proportion as this is accomplished drama reaches greatness and endurance. When Sothern, in "The Dancing Girl," has the player in the title-role face her former lover with the accusation, "It is such men as you that make such women as me possible," the thrust goes home. It recalls stern old Nathan's denunciation, "Thou art the man."

Once in a long time we are permitted to enjoy a play that is an approximation to the ideal here suggested.

There's a play at the "Cort" (Chicago) that's worth while. Father and son are fretting under the tedium of life in a country home in winter. Comes an adventuress who proceeds to liven up matters and ends by taking the old man away from his family. He divorces his wife and marries the girl, who, with the able assistance of her family, proceeds to make ducks and drakes of his fortune. Realizing at last her despicable nature he turns upon her, gets his divorce and retires, broken in health and resources. A friend conducts him to the home of his family, unwittingly to them or to the father, who is welcomed by his daughter and son, and faced by the wronged wife.

Up to this point the management of the plot has been masterly, but here the mistake is made: The old man, broken, repentant, just up from a sickbed, stands with bowed head before the silent, statuesque wife, who hears his broken words of self-abasement to the bitter end. His humiliation leaves out nothing—it is inhuman. Finally she unbends a little, graciously intimating that for the children's sake some concession may be made, and possibly a ray of sunshine may yet light up their later days. Here's where a great opportunity was lost.

Womanly pity might have shown her an old, broken, sick man, who had been shamefully deceived, and at last had awakened to the heartless deception that had been practised upon him. Great as had been her wrongs; she might have forgotten them in appreciation of his condition, and rendered him the merciful cares one would give a hurt dog. But no, she stands icily until he has drunk the bitter cup to the dregs. Why couldn't she have forgotten herself for the moment, and have done like the son, who, coming in and seeing the poor old man cowering in his chair, rushes to him with open arms and the one word, in accents of glad, loving surprise—"Father!"

Was she blameless? Why did she not take time from darning stockings to devise some means of enlivening the dull life, when she saw husband and son fretting under the inactivity? Why, when she saw what a change was wrought by a fresh young girl entering the house, did she not take the hint, and fill it with bright young people, instead of leaving the adventuress for five months to insinuate herself into the affections of the lonely men? Why?

Because to some women the object of their own lives is to keep the clothes

mended and the furniture dusted; while their ideal man is the family cat, who slumbers behind the stove till his services are needed. The abounding masculine energies that must have an outlet have no meaning to her. Such women lose their husbands.

But perhaps the play was written for women. They are the theater-goers—and to them the completeness of the triumph, the abjectness of the man's surrender brought a sense of satisfaction.

This sort of left the audience exclaiming, "served him right!" But there is never a time when man recognizes that divine in woman to which we bend the knee in respectful adoration as when she forgets herself in pity for the suffering—and if the object has wronged her, so much the more does one realize that in woman we have a being who stands between man and the angels—better, finer, purer than we, yet still human.

Let us resolve that during Nineteen Hundred Twelve we will so respect one another, and so trust the sincerity of speech and honesty of purpose and of act of one another, that, while each holds steadfast to his own convictions, he is willing to confess that his fellow-citizen is no less earnest and sincere than he is himself in adhesion to what is thought to be the truth.

—Dr. Reginald B. Leach.

INCREASING REQUIREMENTS IN MEDICAL COLLEGES

We have just received a statement from the Illinois State Board of Health telling of the increasing requirements in different states as regards preliminary training before entering upon the study of medicine. In nine states a high-school education will no longer be accepted as a sufficient qualification for beginning professional study; in eight of these, evidence of one or more years of attendance at a college or university of recognized standing is already demanded.

Colorado now requires that a student who was matriculated in 1908–09, and graduated in 1912, shall have had one year of college work as preliminary training; this is increased to two years in the case of physicians who matriculated in 1910 and will be graduated in 1914. The Colorado requirement, however, will not be imposed upon practitioners who take the examination of the state board of examiners, applying only to those who receive their licenses from other states.

South Dakota already requires two years of college work as a prerequisite to license, this applying to graduates of 1911 and thereafter. Minnesota and North Dakota will also require the two preliminary college years from those graduating in 1912 or later. Indiana will require one year of college preparation from graduates of 1913, and two years from those of 1914; Kansas and Connecticut will require one such year after 1914; Iowa two years after 1915; and Utah one year after 1917.

It will be seen that in most cases these regulations apply to students now beginning the study of medicine. With the exception of Utah, Dr. Egan doubts if in any of the states the rules will be rigidly enforced in the years specified, but the standard is going steadily upward and the medical colleges of the country will be forced to adapt themselves to them.

While there can be no doubt as to the desirability of every student getting the best possible education—starting his medical career with the best possible foundation—there certainly is no inconsiderable danger of overdoing the thing by going too fast. So long as the door is wide open to the irregular (who is and probably will be permitted to "practise" with no medical qualifications worth mentioning) the raising medical standards will almost certainly be accompanied by the creation of a perfect horde of "naturopaths," "chiropractics," "mental healers," and so on, who will crowd into this "open door" of opportunity and make the profession of medicine constantly more difficult. Unfortunately, the great mass of the people are not college or university bred, and do not appreciate the value of the prolonged and exhaustive training now required to enter the practice of medicine, and these pseudo-doctors will do the real doctor's work (or try to) if no university-trained man is at hand.

Under the circumstances would it not be wise to make the change to higher standards so gradually that injustice is not done to any worthy medical school or medi-

cal man? We shall need many physicians for the masses during the next decade, and they should be real doctors, not quacks. Meanwhile let our colleges prepare to do better work.

It is a misfortune to have a wooden leg, but a crime (eugenic) to have a wooden head.—With apologies to "The Silent Partner."

STERILIZATION AND SOCIAL THERAPEUTICS

At the meeting of the Chicago Medical Society, held December 9, 1911, Dr. G. Frank Lydston read a paper on the subject named in the title. Unfortunately, he had yielded the first place on the program to another speaker, who occupied far more time than had been his intention, so that Dr. Lydston's paper could not be read in whole, while the discussion necessarily was greatly curtailed. It is to be regretted that this was so, for Dr. Lydston has, for many years, been a deep and careful student of this aspect of social economics, and before now has advanced opinions that are well worth pondering over, and the acceptation of which would lead the difficult problem of the social evil at least nearer to a solution.

The investigations extending over several decades have profoundly influenced our ideas as to the role played by heredity, and it has been shown conclusively that physical diseases, are not transmitted, as such, although the predisposition, in the form of a want of resistance, a deficiency in organic forces, or other abnormal characteristics, may be inherited.

Unfortunately, the same does not hold true in heredity of mental characteristics, mental taints, and mental traits. It can not be denied that nervous and mental stigmata—such as epilepsy, for instance—descend to the offspring all too frequently; whether by direct hereditary transmission or in some roundabout way does not concern us at present. Nor can it be denied that vicious tendencies, like alcoholism, criminality and other mental aberrations, are far more likely to crop out and reappear in the offspring of parents afflicted by them than could be explained by the influence of environment solely. In the case of the feeble-minded—at least in those who themselves are charges of the state and, are through their mental poverty, incapable of earning their own living—the procreation of mentally healthy children is likewise practically precluded.

These facts present a very real and serious problem which it is incumbent upon us to solve, or for which we, as physicians, should at least offer a solution.

As is well known, the state of Indiana was the pioneer in attempting such a solution by legislation, and enabled those entrusted with the care of criminals, feeble-minded and otherwise unfit persons to make the transmission of their unfavorable characteristics impossible by preventing the procreation of subsequent generations of undesirables. It has been shown that in some cases the slight operation required to this end is not only devoid of danger to the individual, but that it also frequently is followed by an improvement in the character of the subject treated, and that, therefore, not only is the state saved from future generations of unfit and undesirables, but that the present generation is at least in part improved in quality, so that the state is a gainer thereby.

The question of interfering with personal liberty, which has been raised as the foremost argument against the sterilization of the unfit, can hardly be legitimately raised, because the state justly interferes with the personal liberty of the criminal by keeping him behind closed doors; it interferes with the personal liberty of the feeble-minded by committing him to institutions and asylums where he is kept from harm and from the possibility of doing harm.

If all criminals and all unfit could be kept under supervision in this manner, and if they could be kept isolated and prevented from procreating their kind, it would not become necessary to sterilize them; but as this is impossible, the remedy adopted by the legislature of Indiana presents an easy and harmless means of gaining the desired end.

Physicians should encourage this movement—which is at the present time gaining ground in many other states—toward

adopting similar legislation, and should demonstrate to their clients, especially to the ultra-conservative farmer, who forms the backbone of the country and whose influence in the legislatures is always great, that it would be a move conducive to ultimate economy and saving in many ways if the example of Indiana were followed.

It must not be overlooked that sterilizing an individual by means of vasectomy or by resection of the fallopian tubes is not to be confounded with castration, and does not preclude the possibility of marriage, although it does prevent the procreation of offspring. Castration should be carried out only in cases of crimes of a sexual character, such as rape, and the present writer thinks that subjects deserving such a terrible punishment should anyway be kept under lock and key for the rest of their lives, because they are a menace to society. Sterilization is a purely prophylactic measure, and not to be considered as punitive in any way.

The person who meets you with a smile and a glad hand, when adversity has overtaken you, is your friend—all others should pay cash—Rube Wight.

DR. SAJOUS BECOMES EDITOR OF THE NEW YORK MEDICAL JOURNAL

It becomes the pleasant duty of The American Journal of Clinical Medicine to congratulate its elder brother in the journalistic field, *The New York Medical Journal*, upon its success in persuading Dr. Charles E. de M. Sajous, of Philadelphia to assume the editorship of that important publication.

Dr. Sajous needs no introduction. His brilliant abilities as author, teacher and editor have already brought his name to the attention of practically every American physician. Sajous' "Cyclopedia" is one of our best known and most valued medical reference books, and his splendid two-volume "Internal Secretions" is one of the finest records of medical research work yet produced in this country.

Dr. Sajous has had long experience as a medical editor, having served for many years as head of the staff of *The Monthly Cyclopedia and Medical Bulletin* of Philadelphia. Probably no man in America could be found who is better adapted to succeed Dr. Frank P. Foster, whose brilliant and scholarly services gave to *The New York Medical Journal* its standing as one of the most useful and most ably edited medical journals of the country.

Clinical Medicine extends its best wishes to Dr. Sajous in the expansion of his literary activities. Under his scholarly hand *The New York Medical Journal* will assuredly take another forward stride. We have noticed with pleasure a number of innovations which have already been made, and future progress is certain.

"No, money ain't all there is fer people to try to git;
I'll bet you it's never bought a harp over yonder yit;
But I guess it'll hardly do fer a chap to be too blame sure
That glory's awaitin' him just because he keeps bein' poor."
—S. E. Kiser.

PRESSOR-BASES OF URINE

In *The Lancet*, William Bain contributes a study of the pressor-bases found in the urine. These bodies raise the arterial pressure and are found in the urine of persons presenting high blood pressure.

One of these bases probably is isoamylamin, a derivative of leucin; another probably is p-hydroxyphenylethylamin, a derivative of tyrosin. They originate from protein putrefaction in the alimentary canal.

The influence of diet was marked. On a low diet of vegetables and fruit the quantity of the pressor-bases in the urine was lessened greatly. The addition of milk to the tea and coffee caused a marked rise of vascular pressure; and this was largely increased by eggs, still more by fish, yet still more by chicken, and it rose yet a little on an ordinary mixed diet. In this series, base 1 thus rose from 30 mm. Hg to 49, 116, 122, 160, and 164; base 2 rose from 3, to 6, 16, 42, 36, and 40 mm. Hg.

No relation could be traced between gout and the retention of pressor-bases. These were absent from the urine of children under fourteen, also in cases of high blood pressure, this being in part due to the low diet enjoined, but mostly to their retention in the system.

The Ordinary Care of the Physician's Hands

By RALPH ST. J. PERRY, M. D., Parkers Prairie, Minnesota

DURING the years that have elapsed since Lister promulgated his antiseptic edict of cleanliness, much has been written upon the rendering of the hands aseptic, so much, in fact, that in the thrusting of the aseptic "mit" into the lime-light many have overlooked one of the most potent factors in medical economics—the ordinary care of the doctor's hands. This subject is very properly an "alkaloidal" one, being an "active principle" which is a success-maker.

The doctor's *hands should be clean, dry, warm, smooth, and soft.* Regardless of the social classification of his clientele or of his own standing in the community—whether as a general practitioner or a specialist—whenever he gives the grasp of friendship or he makes a physical examination, his friends, patients, as well as innocent bystanders should be witness to the fact that his hands possess those five qualities enumerated, namely, cleanliness, dryness, warmth, smoothness, softness. This possession does not in any way imply weakness or effeminateness, it merely indicates compliance with a business necessity.

Cleanliness of the Hands

The conditions of our mundane existence are such that the hand becomes the lodging place for more or less dirt—matter out of place; and because of the many peculiar requirements of our professional work, we come in contact with many kinds of dirt not within the ordinary manual affinity of others. As this latter remark also applies to nurses, they are hereby given permission to peruse this article—and profit thereby.

In cleansing the hands, it is best to use warm soft water, if possible. If not obtainable, use hard water which has been boiled for half an hour or to which a little ammonia or borax has been added. The solvent effect of the water is more fully secured if the water be warm. Soap is a necessity to the laving, and after some forty years of saponaceous deterging I am still adhering to the old reliable coconut-oil soap of my youth and concomitant dirtiness. The coconut-oil makes a purely vegetable soap, and when properly made it is hard, white, almost odorless, and will form a good, cleansing lather either in hard or soft, warm or cold water. It is not expensive and can be bought anywhere. (I may add that the "Reine" brand, made by the Delorme & Quentin concern of Milwaukee, has been my favorite for years.)

Various antiseptic soaps are on the market, but such are not needed for ordinary cleansing. Soft and liquid soaps, while very nice for your office wash-stand, can not well be carried about on one's trips. Always carry your own cake of soap; it is safer and cleaner then the promiscuously used piece commonly found away from home. In the farm home you too often are offered a chunk of laundry soap, which, because of the rosin it contains, is not good for toilet purposes, this article leaving the hands gummy and sticky. Soap leaves—

sheets of tissue-paper coated with soap—are handy, when obtainable.

There are two best times when to wash the hands, namely, just before examining a patient, and just after. The frequent repetition of this practice is perfectly harmless, while the psychic effect upon the patient and others is beneficial.

How to Wash and Dry the Hands

In washing the hands, do not merely dip them in the water and wipe the dirt off on the towel; that is a poor way. Take off your coat, remove your cuffs, pull your shirt sleeves up to the elbows, undershirt ditto, then wash well up along the forearm. That little dark line of demarkation we so often see at the wrists is more an evidence of slovenliness than of uncleanliness. Wash the dirt all off into the water, leaving as little as possible to be wiped off on the towel.

The towel was intended for drying purposes, hence should be of an absorbent material and woven thick enough to be serviceable. Turkish and huck towels are better than crash or thin cotton stuff. The paper towel, which has been recently introduced, is better and cheaper than a cloth towel, which has to be laundered. As stated, the function of the towel is desiccative or dehydrative, and in carrying out this part, there should be a thorough and careful wiping at all joints and in the interdigital clefts. Imperfect drying leads to red and chapped hands, roughness of the skin, and eczema.

The Finger-Nails Need Close Attention

The physician who drives, rides a bicycle, runs an automobile or uses the cars, should keep his hands as clean as possible by wearing suitable gloves all the year around.

Another, and most important, matter not to be overlooked in cleansing the hands is that the finger-nails require careful cleaning also. Use a nail-cleaner, your pen-knife blade, a toothpick, the chewed end of a match or any suitable extemporaneous tool, but, by all means, let people see the natural color of your projecting nail-tips. Not even if you have suffered bereavement should your melanotic emblem of mourning be shifted from your sleeve to the finger-nails.

I have in mind a surgeon who, some years ago, was on the highway to fame and fortune. He had acquired positions of honor and a good income. But in spite of his brilliant discourses and equally brilliant results (in some classes of work), he lost many patients by death. At first, as a nonresident admirer, I sympathized with him in what seemed to be his "hard luck." Then, one day, while I was discussing surgical affairs with a noncombative resident, the latter chanced to refer to our "unlucky" friend as "Old Dirty Fingernails." This I found was the sobriquet bestowed upon that surgeon in the inner circle of those thereabout who chirurge—and in an instant there came an enlightening flood of understanding. And—*res ex* ("everything was off") with one more consulting surgeon.

Offensive Odors—How To Handle Them

One of the idiosyncrasies of personal contact which the doctor meets is the odoriferous patient. The aroma may be that of pus, of feces, vaginal secretion, penile smegma, amniotic fluid or any other of the odorific secretions, and this effluvium may possess a tenacity and lastingness that maliciously defies your most frantic washings and scrubbings, irrespective of strenuous repetitions. There may be a hyperesthesia of your Schneiderian membrane or a hypertrophy of your imagination as factors in the case, but to you the proboscial offense is a reality, and it may be no less so to others.

As a deodorizing treatment, I have found the following very effective: Wash the hands thoroughly in warm water, using coconut-oil soap freely to produce a good lather; then wash in a solution of cyanide of mercury, 1 : 1000. Dry the hands *thoroughly*, after which rub a few drops of pure balsam of Peru into the skin. This imparts a vanilla-like odor to the hands and effectually masks the offensive odor. If necessary to leave the office at once, a nongreasy toilet cream (made of casein) perfumed with oil of rose may be applied; but if possible, use the balsam of Peru, as it is not only disodoring but healing and antiseptic as well.

The same method may be employed in overcoming the odor of iodoform, carbolic and lysol solutions, valerian or any other unpleasant-smelling drugs with which the hands may have come in contact; so, also, against the hippuric, hippofecal and generally manurial and similar odors which attach to the doctor who personally attends to his barn duties. As a counter or foil for the odor of automobile oil and machine grease it is A No. 1—but I doubt if anyone who pays a high price to acquire such a luxury would be very anxious to get rid of that. However, the suggestion is offered.

Detergent Methods for Sundry Soils and Stains

Grease and grime, paint, tar, printers' ink, asphalt, and matters of this nature call for more than soap and water. A little kerosene, benzin, gasolin or oil of turpentine rubbed on the hands as a preliminary to the washing will soften—"cut," as is the saying—the adherent dirt, so that most of it can be wiped off with a rag or bit of soft paper. Then wash freely with the coconut-oil soap or a real good tar soap (I prefer "Grandpa's"), adding a few drops of oil of turpentine or kerosene *after* the lather has formed. (Remember the injunction "after"!) Such a procedure will leave the hands clean, white, and soft. Clean diligently around and under the finger-nails with a stiff-bristle brush. Any remaining odor can be covered up with a few drops of balsam of Peru.

A most excellent type of soap for assisting in the removal of grime, paint, and dirt-matter of a smudgy, adhesive nature are those containing an admixture of fine sand, rottenstone, pumice or marble dust. Originally introduced, years ago, as "hand sapolio," these detergent soaps are now a general commodity as "mechanics' soap," "pumo," and under various other seductive trade-names. Most of them are made with coconut-oil soap as a basis—hence are satisfactory.

Stains Produced by Chemical Agents

Chemical stains upon a doctor's hands, even if ocular evidence of profound laboratory research, are not always interpreted as such. When the hands have been stained by a strong alkaline solution, wash them with a diluted acid (nitric or acetic—1 part in 100 parts of water); then, immediately, thoroughly rub soap into the skin of the wet hand, using no water. The acid, decomposing the soap (sodium oleostearate) brings about a deposit of fatty acids in the skin, which counteract the effects of the alkali and tend to prevent the skin cracking which otherwise would follow.

Nitric acid, which many of us use so freely and carelessly in urine testing, stains the skin yellow, but this discoloration can be removed by wetting with water, rubbing with soap, then washing in water and scrubbing with mechanics' soap. If soreness follows this treatment, apply lanolin containing a little aristol or thymol iodide, or, if handy, an oil-solution of the latter. The stains resulting from the other mineral acids generally can be removed in a like manner.

Iodine stains can be bleached out by applying a 10-percent solution of sodium hyposulphite; those of corrosive-sublimate solutions, by repeated washings or rubbings with a fairly strong solution of table-salt followed by inunctions with lanolin. Permanganate stains vanish upon application of a not too strong solution of oxalic acid which has been slightly acidulated with sulphuric acid.

Battery fluid, i. e., the bichromate of potassium solution, stains the skin yellow; this, however, is removed by washing in a strong solution of sodium hyposulphite to which a little sulphuric acid has been added. Stains from some aniline dyes are removable by washing first in alcohol containing a little acetic acid and then rubbing with Javelle water (chlorinated-potassa solution, N. F.) or Labarraque's solution (chlorinated-soda solution, U. S. P.). The latter—now quite commonly also designated as Javelle water—is a preparation used by professional cleaners and scourers. Many formulas for it are in vogue (see U. S. Dispensatory), of which the following is one, though unusual: Sodium bicarbonate, 4 parts; water, 8 parts; chlorinated lime, 1 part. Dissolve the soda in the water, gently boil a few minutes, add the lime, allow to cool, then strain or filter. The boiling serves merely in facilitating precipitation of the calcium-

carbonate magna, but it also dissipates the active gases.

Stains produced by berries, grass, walnut-husks, and in fact all stains due to vegetable juices can be removed by repeated applications of this chlorinated water; likewise ink stains.

Dryness and Warmth

Supplemental to my previous remarks on keeping the hands dry, let me state that the hands, so far as possible, should be kept dry in summer, at which season the sweat-glands are prone to "work overtime." Some individuals are afflicted with excessive perspiration at all times, and these should be particularly careful to keep their hands dry. The moist hand is almost always a cold one, and a "cold, clammy" hand has a most depressing effect in business relations, especially with superstitious people and those of the original stock from the "ould sod" of the Emerald Isle. You may tell them as often and emphatically as you wish that "a cold hand means a warm heart", the chances are that they're "against ye."

A warm hand means a good capillary circulation and is usually an indication of good health. It is certainly an asset in the field of medicine, surgery, and obstetrics when it becomes necessary to make manual or digital examinations.

Beware the Cold, Clammy Hand. Gloves

There is nothing so disconcerting to an unsuspecting feminine abdomen as to have an icy hand laid upon it. Not only is the effect a bad one upon the owner of said abdomen, but the muscles display a revolutionary spirit by contracting and hardening, while even the internal organs receive an impression which seems to make them shrink from the unwelcome exterior invasion. As a consequence, it is often practically impossible for the doctor approaching with a cold hand to make a proper or satisfactory examination.

When you know your hand is cold (as you can readily test by applying it to your own cheek or throat), it can readily be warmed in a few minutes by holding it in a pan of warm water.

Prophylaxis, however, is far better than corrective measures. Keep your capillary circulation in good order, and be sure to wear warm gloves, according to the season and climate. In summer a thin cloth glove will answer; in the spring and fall a golf-glove, with a thin white cotton military-dress-parade or a pall-bearer's glove inside of it, keeps the hand warm, dry, and free from the scratching of the unlined golf-glove; the white cotton glove being washed as often as required. Such a double glove has proved in actual service to be warmer than one of thick, heavy cloth.

In winter time, especially in the northern half of the United States and in Canada, where the mercury retreats down into the subcellar occasionally, it becomes necessary to resort to fur gloves or fleece- or fur-lined ones. During a score of years spent in driving over northwestern prairies, frost-nipped and blizzard-swept, I have worn all manner of fur and leather gloves and mittens, from sealskin to catskin, and there is no doubt in my mind that the warmest ones are those made from muskrat skin lined with fleece or with rabbit fur.

A winter-glove should fit loosely, as a tight glove compresses the digital arteries, shuts off the blood supply and really defeats its own purpose and makes the hand cold by depriving the fingers of their supply of blood-heat. A snug mitten is all right if one can drive with mittens, or if you have a driver; a too large mitten fails to conserve the heat and is cumbersome and awkward to manage.

Smoothness

A smooth condition of the hands not only makes them more presentable, but it also helps in the development of the tactile sense and affords fewer places for the lodgment and development of germs. Callosities from unusual work or of an occupational nature should be removed. Apply to the spots some salicylated flexible collodion; after a few hours an epidermal layer can be scraped away. Repeat as often as necessary, to get rid of the superfluous epidermis. This same treatment may be used for all varieties of warts.

Cracks due to chapped skin, eczema, and all other forms of skin disease incapacitate the physician for any form of surgical, obstetrical or gynecological work and should be cured as expeditiously as possible.

The finger-nails should be trimmed to shape, with well-smoothed and even edges. They may be polished or not, as the taste of the individual may incline. The nails are naturally of a smooth, satiny finish and pink color, and defects in finish and color can easily be overcome by the physician himself, or else by the young lady manicurist around the corner (q. v.). Hang-nails are an abomination in the eyes of the aseptic, hence should always be removed. Ganglions, wens, and any tumors that may develop are to be gotten rid of, for they are unsightly and, if neglected, serve as a suggestion to others that they can do likewise as to their own troubles—to your financial detriment.

Softness

A soft feel of the hands goes with that greatest of all qualities of the doctor—the gentle touch. The doctor who is rough in his work very often errs in diagnosis, for the reason that his roughness causes him to miss many points in an examination which are only perceptible to the easy, gentle pressure of the soft finger-tips. Handle a chestnut-bur gently and you feel all of its thousand spicules; grasp it roughly, and you feel them not. I have noticed, too—if I may here interject an economic note—that the surgeon or gynecologist who possesses this gentle touch is usually very successful in the financial touch. *Verb. sap. sat.*

Hands Must Be Protected

By the time the M.-D.-to-be finishes his senior course his hands are usually well softened; but every man is called upon to do more or less rough manual work about the house, and it behooves him to see to it that his hands do not get rough. For this purpose he can use local applications of petrolatum, cold-cream, glycerite of tragacanth, coconut-oil, or any one of the score of efficient toilet creams and ointments known to the trade. They may be used plain, medicated or perfumed, as desired. It will be found in this matter, as in others, that there are idiosyncrasies, and what will quickly benefit one skin will irritate another, or have no effect upon it. Each individual must learn his own peculiarities by experience.

One of the little nick-nacks I have used for years with patients of this class is a putty-ball (fresh and of good quality), about the size of an orange, which the rough-handed person is instructed to manipulate and "work" for half an hour at a time. The exercise of the manipulation develops the muscles and fills out the thin, scrawny hands while the oil in the putty softens and cleanses the skin.

The Surgeon

By ANNE McQUEEN

As high priest, teaching an acolyte,
He watches over each holy rite,
The flame and water to make them clean—
Body, and garment, and weapons keen—
With sacred care for a sacred strife:
To rout a foe in the House of Life!
For blade and body must both be pure,
And hand be steady, and eye be sure,
And weapons purged in the fiery glow,
Whenever he wars against a foe.
With joy of battle his soul is rife,

Behold! He enters the House of Life!
His flashing blade, it is dripping red—
He follows fast where the trail has led,
To the sacred shrine with ruby throne
Where Life has fought with the foe alone.
As the high Priest's hand may lift the Veil,
He boldly enters the holy pale;
His hand is steady, his weapon bright—
The foe is vanquished and put to flight!
And Life awakens, with anguished breath;
For Man has grappled and beaten—Death!

—From Lippincott's

The Therapeutics of Neurology

From the Practical Side

By THOMAS GEORGE ATKINSON, M. D., St. Louis, Missouri
Professor of Diseases of the Nervous System, American Medical College, St. Louis, Missouri

EDITORIAL NOTE.—This is the first installment in a new series which promises to be of great value. The subject discussed is one with which most physicians are not sufficiently familiar, and it is treated by Dr. Atkinson in an eminently practical manner.

Preliminary Considerations

IN ALL the fields of therapeutics where nihilism has blighted faith and numbed endeavor, that of neurology is surely the most hopeless. In the present-day teaching of clinical neurology there is scarcely any place given to treatment, beyond the most perfunctory enumeration of a few routine drugs; and they are mentioned with a listlessness which warns the practitioner beforehand that he has not much to expect from their use.

There is no good ground for this neurological pessimism. It may be freely admitted that the organic degenerative diseases of the nervous system are pretty hopeless. But so are similar diseases of other tissues and organs. No effective treatment has yet been found for interstitial nephritis or cirrhosis of the liver, which are the renal and hepatic analogs of locomotor ataxia and lateral sclerosis. So that neurologic therapeutics is, in this respect, in no worse plight than other therapeutics. Indeed, the neurological instance has a good deal the better of the situation, since hyperplasias of the spinal tracts are not infrequently checked, and, at the worst, the functions compromised by them are not so vital as those which are crippled by similar hepatic and renal lesions. And therapy—active, intelligent therapy—is not nearly so helpless, even in this discouraging region, as the textbooks, with their cut-and-dried nihilism, would lead us to suppose.

In the inflammatory types of nervous disease old-line therapy displays its futility most conspicuously, and, *per contra*, modern proximate-principle therapy offers its most notable superiority. It is, indeed, little wonder that the old-line therapy has led to nihilism; for in all of the medicinal treatment proposed for these inflammatory diseases the modern concepts of inflammation and its sequelæ have scarcely been reckoned with.

In the functional nervous diseases, of course, the therapeutic possibilities are relatively largest; and yet even here, where one would naturally look for positivism and resourcefulness, the field of old-line therapy is comparatively barren. And the reason is again to be found in the failure to apply therapeutic principles to the modern concepts of disease—a failure which would be incredible if it did not stare us in the face from the pages of every neurological textbook.

It is the purpose of this monograph to make good this omission. It makes no pretensions to any new or startling system of treatment. It simply aims, by the application of a few elemental principles of drug therapy and a few equally definite remedies to nervous pathology, to restore resourceful confidence and reasonable hopefulness to the therapeutics of neurology. No attention is given here to etiology, symptomatology or diagnosis. These can be found, *in extenso*, in the current textbooks. Attention is confined to therapy, and practically to drug therapy. When the larger textbooks have been consulted and followed as far as to the stereotyped and hopeless formula, "there are no drugs that can be satisfactorily recommended," or words to that effect, the reader is invited to revert to this brief effort and fill up the cheerless gap with a few live, red-blooded suggestions from the experience of men who are making good.

Diseases of the nervous system are usually divided, for clinical purposes, into

(1) diseases of the brain; (2) diseases of the spinal cord; and (3) diseases of the peripheral nerves; with (4) a final separate compartment for the group known as functional nervous diseases. And it may be remarked, in passing, that this kind of classification, like most classifications "for clinical convenience," is in reality anything but a convenience, but is responsible for a large part of the confusion, and hence the nihilism, that attends the therapeutics of the subject.

As soon as men begin to think about pathologic conditions in terms of disease-names, instead of disease-pictures, they immediately and unwittingly—no matter how carefully they believe themselves to be armed against it—begin to think and speak of their therapeutics in similar cut-and-dried fashion. And that speedily results in therapeutic nihilism, because it quickly becomes evident that drug-names and disease-names have no necessary or constant relation to each other.

Now, the one and only adequate classification for any group of diseases, for therapeutic purposes, is that which is based upon the physiologic process involved in the condition. The simpler and more proximate this conception of disease is kept, the simpler and more proximate will be the conception of the therapy it calls for; and, *per contra*, the more the one is befogged by artificial considerations of topography and nomenclature, the more remote the other will become.

There is no medicine—we must not forget—which acts specifically upon the head, or the back, or the limbs; nor is there any which is specifically adapted to measles, or pneumonia, or meningitis, as entities. But there are remedies which, in virtue of their influence upon physiological processes, affect certain tissues (the word is used in its broad sense) and functions; and it is by a proper utilization of this influence upon such tissues and functions that we bring about therapeutic results.

Plainly, then, the therapeutic classification of disease-forms must rest upon the tissue changes and functional derangements which characterize disease conditions—and which are not necessarily constant for any "named" disease.

A Rational Division of Neuric Disorders

Upon these premises there can be but three classes of nervous diseases, as follows:

1. Inflammatory.
2. Degenerative.
3. Functional.

By the first term is meant those diseases of the nerve-tracts which depend upon the train of pathologic processes pertaining to inflammation, including exudation, infiltration, pressure necrosis, and the rest of the sequelæ. By the second, those in which the essential morbid element is a hyperplasia of the interstitial nerve-tissue or its replacement by connective tissue. By the third, that group of nervous troubles in which no gross organic lesions are discernible, but which apparently depend sheerly upon a functional disturbance, either in the neurons themselves or in the vasomotor mechanism associated with them.

To the foregoing rational classification the author invites those who read this essay. Out of a decent regard, however, for conventionalities, the usual order will be observed in treating of the members of these disease-groups; namely, diseases of brain, of cord, and of peripheral nerves, in the sequence named—which, be it understood, is merely a matter of itemized order, and in no sense of classification.

1. It would seem to be an axiomatic proposition that, inasmuch as the physiologic pathology in diseases of the nervous system is fundamentally the same as in diseases of other regions, their therapeutics ought at least to be just as potential.

2. By the same token, the therapeutic principles which apply to the one ought to apply to the other.

True, there are certain elements appertaining to the anatomy and physiology of the nervous system which modify these two propositions. That is true in comparing any of the tissues or organs of the body. But they are merely incidental considerations, and do not affect the true therapeutic coefficient. And one of the things that

have played havoc with neurologic therapeutics is the fact that we have paid too much attention to these special considerations, and too little to the simple underlying physiology of the matter.

The False Ratiocination of Current Practice

Let me illustrate. One of the classical accompaniments of inflammation is pain. In meningitis, because of the peculiar relations of the special tissues involved, the pain usually takes the form of headache, and is exceptionally severe and constant. Now, in the case of, say, a visceral inflammation, we recognize the incidental nature of the pain, and, while we use reasonable means to keep it within tolerable bounds, we do not regard it as the prime objective of our treatment; and above all we recognize that opiates are antagonistic to our therapy of the underlying conditions of inflammation, hence we use them as little as possible. But in the case of meningitis we have been so obsessed with the neurological conception that we have looked upon the pain as a basic element, and have directed our therapeutic agent (usually opium) to the relief of that, with some sort of idea that we were thereby getting at the root of the trouble, forgetting that in this way we were destroying, instead of assisting, whatever chance nature had of remedying the underlying congestion and exudation, of which pain is a manifestation.

Again. One of the common manifestations of functional derangement of an organ or tissue is a certain irritability, which displays itself in a spastic functionation of that organ or tissue—as a diarrhea in functional intestinal troubles. Now, in ordinary cases, unless the irritability is excessive, we do not address our main therapeutic effort toward this incidental symptom. We adjust, with our remedy, the vasomotor mechanism, or whatever may be at fault, and the spastic trouble rights itself.

But, in the case of nervous diseases we have lost our sense of proportion. The "nervous" symptoms of these functional diseases are precisely analogous to the diarrhea in the bowel; they represent the way nerve-tissue has of manifesting irritability or exhaustion. Yet, so obsessed have we been with the neurological idea that we have regarded these symptoms as the disease itself, and have been loading up our patients with bromides, *bromides*, BROMIDES, in the fond delusion that we were striking at the heart of the trouble. I dislike to speak ill of old and time-honored servants, but I am constrained to assert that the bromides have been the curse of neurologic therapeutics.

It is this obsession on the part of the neurologist which accounts for the frequent surprising spectacle of a general practitioner succeeding in a neurological case where a distinguished specialist has failed or has given up. The specialist, obsessed with the "special" aspects of the disease, has seen nothing but opiates and bromides, and he knows well the futility of such treatment. The general practitioner, with no such prejudices to blind him, has gone ahead with the remedies that the patient's condition seemed to call for, and has won the case.

The fact is, as already intimated, *the pathology of the nervous system*, so far as it relates to treatment, *is precisely the same as that of diseases of the rest of the body*, calls for the same therapeutic principles, and yields proportionately the same results.

Inflammatory Diseases

The inflammatory group of nervous diseases includes the following conditions:

Encephalitis,
Meningitis,
Myelitis,
Poliomyelitis,
Landry's paralysis,
Neuritis.

It will be noticed that the morbid physiology of all these diseases, as boiled down and set forth in these pages, is essentially the same: and, further, that it is essentially the same as that of all other inflammatory diseases. Stasis, congestion, exudation, infiltration, pressure-necrosis, and, if not relieved, interstitial hyperplasia—this is the history of every inflammatory process. And it is precisely this train of events with which we have to do in the case of the dis-

eases of this group, in the nerve-tissues of brain, cord, and peripheral nerves.

The most elementary logic would instruct us that the rational therapy of such conditions should be precisely the same that which our modern knowledge of pathology and therapeutics leads us to apply to similar conditions elsewhere. Such a proposition is so simple that a statement of it seems ridiculously superfluous. But a glance through the system of treatment laid down in current textbooks and magazine articles on neurology will demonstrate the need of its reassertion.

What, for instance, is the approved treatment, as currently taught, for myelitis? Opium, quinine, arsenic, strychnine, iodides! For myelitis the formula varies like the Irishman's steak-and-potato dinner—it is "the same barring the steak"; in other words, the quinine is left out. For meningitis, we are told, "there is no drug that influences the course of the disease." Yet the physiologic pathology of these diseases is the same as that of, let us say, appendicitis. Would any modern physician think of using, or recommending, the above-named drugs for appendicitis; or expect to get any results, if he did do so, beyond the analgesic effect of opium?—justifiable as an expedient, but useless as a remedy.

The rational basis of therapeutics in inflammatory conditions, as called for by the physiologic pathology, is, first derivative, then absorptive, and always eliminative therapy; and inflammations of the nervous system offer no exception to the rule.

The secret of success in this treatment lies in using drugs of *definite dependable action*, and pushing them boldly, albeit intelligently, *to effect*. So attacked, even the most formidable of the inflammatory nervous diseases, like those of other tissues, often yield with surprising and gratifying promptness, and leave the victory with the physician.

Encephalitis (Cerebritis: Inflammation of the Brain)

Pathology: Active congestion of brain-cells, due to dilatation and stasis of small vessels, with tiny scattered hemorrhages into brain-substance. Later, copious serous exudate, filling cerebral interspaces, causing compression-symptoms.

Treatment: Derivative. In the early active stage:

Atropine in small doses, 1-500 grain, frequently repeated, to relax entire vasomotor system and drain cerebral vessels. (In large doses its action is the reverse.) Prompt and certain, but not to be used long at a time, because it checks body-secretions.

Veratrine and aconitine, to dilate systemic capillaries and slow heart, thus depleting cerebral circulation, and to stimulate secretions. Veratrine is ideal in this stage.

Calomel, in small repeated doses, followed by a saline laxative, to flush and disinfect intestinal tract.

Cold to head and heat to abdomen and extremities, for derivative effect.

In the exudative stage, evidenced by stupor and compression symptoms:

Elaterin (hypodermically), to excite revulsion by the bowels.

Lobeline, to drain through serous membranes.

Colchicine, to stimulate elimination through liver, kidneys, and skin.

Apocynin, to carry away serous fluids and body wastes.

No ice-bags or cold to the head during this stage.

Acute Mania

Pathology: That of encephalitis (which see), with capillary hemorrhages into the meninges and intense cerebral hyperemia inducing great irritation and hyperactivity of the cortex.

Treatment: Same as that of encephalitis, but pushed with more vigor. Also, in addition:

Hyoscine to secure sleep; gelseminine as an antispasmodic, pushed to the production of ptosis of eyelids.

Cicutine and solanine in the later, milder, stages, as sedatives.

Keep bowels sharply flushed, maintain strength by suitable diet.

Meningitis (Simple Traumatic or Infective)

Pathology: Dilatation, stasis, and congestion of small vessels of meninges, usually

due to toxins. Later, profuse serous exudate into arachnoid spaces, causing compression-symptoms. Resolution or death.

Treatment: Derivative, revulsive, and eliminant.

Veratrine and aconitine, with digitalin, in combination, to dilate systemic capillaries and slow heart, thus depleting the meningeal capillaries, and to stimulate secretion.

Gelseminine and cicutine as spinal antispasmodics.

Calomel, followed by saline laxative, to flush and disinfect the intestinal tract.

When exudation, with compression-symptoms, supervene:

Elaterin (hypodermically), to excite revulsion by bowels.

Lobeline, to drain through serous membranes.

Apocynin, to carry away serous fluids and body wastes.

Cold to head and neck and heat to extremities for derivative effect.

Later, during convalescence:

Ergotin, to tone up the capillaries.

Nuclein, to combat anemia; and also lecithin, to build up nerve-tissues of brain and spine.

Calx iodata, for its iodine and lime effects.

(*To be continued.*)

Urine Analyses Which Have Solved Diagnostic Puzzles

From the Records of My Private Laboratory

By B. G. R. WILLIAMS, M. D., Paris, Illinois

EDITORIAL NOTE.—This intensely interesting paper is the first of a series which Dr. Williams is preparing for us on the "Surprises, Delights and Curiosities Encountered in Medical Laboratory Work." The medical profession is just beginning to realize the value, yes, the indispensability of the physiological laboratory; and Dr. Williams shows how fascinating such work may become. If you read this paper you will be satisfied with nothing short of the entire series.

A CERTAIN lawyer, upon being asked the difference between a business and a professional career, made this answer: "In business, you soon learn what to expect, and profit by this knowledge, quickly perfecting systematic methods. But in professional activity, the conditions of today have never previously existed, and such obstacles as are met with must be overcome by devices and solutions never before called to our assistance."

Who knows what a day may bring forth? One of our popular actors little dreamed when he amused us with his "Aint It Funny What a Difference Just a Few Hours Make?" that he, himself, only a few hours later would be hiding from his fellow men.

In medicine, and especially in diagnostics, do we see this truth daily emphasized. And in the medical laboratory, the workshop of the physician, do we meet many of these surprises, delights, and curiosities.

I open the records of my private laboratory for the past few years and discover in my "findings" only a very few duplicates. Being especially interested in this small, yet important, portion of scientific medicine, I find many readable instances of the "unexpected." These I am about to relate to the readers of THE AMERICAN JOURNAL OF CLINICAL MEDICINE.

Not infrequently I was surprised to find just what I was expecting. But as a rule that which I was sure the chemical test or microscopic study would demonstrate was absent, and, on the other hand, many important findings of a different nature presented themselves.

Research has offered to diagnostics far more than to therapeutics. Indeed, mistakes of physician may usually be traced

to the fact that they have either diagnosticated incorrectly, or, if unprepared for the more difficult laboratory procedures, have failed to avail themselves of expert assistance. It might be interesting for the reader to study out just what he would have done in certain of the cases I am about to present, providing "laboratory information" had been denied him. Personally, I can well see why at least one-half of all those seeking medical aid are given improper treatment.

Diagnostics has pointed out many proven paths, but the physician only too often has carelessly turned aside and become lost. But let us open the records.

Testing the Laboratory Man's Competence:

Under stress of business I had fallen behind with my work and several specimens of urine had been neglected for other more esthetic samples; but finally they forced themselves upon my attention. Applying my tests, two of them were quickly completed by routine methods and the records finished. But the third one immediately proved a stumbling block.

After a confused juggling of an hour or more, certain aspects of the sample remained unexplained. These facts I communicated to the attending physician, requesting another specimen from the patient. A second and a third sample were obtained and tested, but I would not risk a report. Surely, I was on the eve of some great discovery which would place my name beside that of Koch and Pasteur; yet all the while I suspected that something was wrong. The samples were obtained with some difficulty, but eventually the fourth arrived. In no instance was there more than two ounces, although I insisted that at least four ounces should be sent.

The last sample was then subjected to a very thorough analysis, with the result that the physician in question was informed that the liquid, while urine, was certainly not that of a human being. Just why this test had been thrust on me I never have been able to tell, as I was denied all particulars. The physician merely said he was sorry I had been given a role in this farce, but he did not solve the puzzle.

Doubtless every laboratory worker gets caught now and then by some practical joker, and it must be a pretty good trap to catch some of them. It is astonishing to find how much a layman can learn about uranalysis, even from occasional remarks of physicians.

In consultations with other interested men I find that all are agreed that urine examined for life-insurance applicants should, if possible, be voided in the physician's office, for juggling of samples has, undoubtedly, obtained policies for diabetics and nephritics. Furthermore, physicians are sometimes taken for plain gumps. Only a year ago a person who was supposed to be ill gave me a sample of weak tea in place of a urine sample. The very first test disclosed the nature of the deception.

These are not all frauds, however. I once directed a woman to bring me a sample of her "water" for analysis. She looked puzzled for a moment, but she faithfully complied, and literally, too, reasoning from her knowledge that I sometimes examined drinking water for evidence of contamination. To be sure, a second sample was necessary in her case, inasmuch as plain aqua fontana would not establish her metabolic activities.

Now I usually call for a sample of "urine," a term at which the most esthetic are unlikely to take offense. The specific instructions for collecting and measuring a 24-hour sample generally make the matter clear. However, once upon a time a woman—an intelligent person, by the way —returned without a specimen. Asked for an explanation, she said, "Why, I thought you were merely joking, or that I had misunderstood you." This woman had never heard of urine testing, being astonished to learn that this excretion might contain evidences of disease.

Such ignorance as displayed in the last instance would be an invaluable asset to those hypochondriacs who pester us to analyze urines persistently normal. With the exception of these individuals, an absolutely "negative" report on urine is uncommon. A person feeling ill enough to submit, voluntarily, a sample undoubtedly excretes abnormal substances in the

urine or retains others wholly or in part. As time goes on, we are learning to identify these and apply the information gained to practical diagnostics.

Value of a Complete Laboratory Examination

Again, lively debates neither diagnosticate nor cure a disease. An instance comes to mind. Here the patient was affected with "nephralgia." The older physician contended that the sediment in the urine consisted of uric acid and the urates, advising the use of colchicum for the supposed diathesis. But another younger man was certain that calcium-oxalate crystals made up most of the precipitate and outlined a very different treatment. Finally they wisely agreed to call in the microscope as an expert consultant. We found no urates and no oxalates—it was pus and blood. A complete test of the urine followed. Two weeks later a renal calculus was removed.

A certain man presented many symptoms of chronic Bright's disease of the interstitial, and invariably fatal, variety and was given just six months to prepare to die. However, to be certain that his diagnosis was correct (a chemical examination could, surely, have no practical bearing), the physician sent a specimen to the biologic laboratory. A small 24-hours' sample revealed a high specific gravity and large numbers of epithelial casts, thus showing the true pathology. The parenchymatous nature of the disorder being apparent, the patient was informed that all hope had not yet fled. And I have been informed that a good sweating and purging put the man on his feet, when two years later apoplexy felled him.

On the other hand, chronic interstitial nephritis is of common occurrence. The health of the patient begins to fail. We find damning evidences in the urine, and so inform his relatives. He is hurried to some noted springs, with a faint hope of possible benefit, but he soon returns in a coffin. The chemical and microscopical findings in these cases rarely vary and, at present, offer but little to the true meaning of "professional career."

Too much emphasis, however, must not be placed upon laboratory diagnosis, at the expense of the other available methods of physical examination. All of these procedures should be carried out and conclusions drawn from the whole. When laboratory findings and symptoms conflict, we are forced to withhold our opinion until the presumable mistake is uncovered. If the test is persistently positive and its interpretation a constant, we usually will find that the symptom-complex may be present in other pathologic conditions. When laboratory findings and symptoms agree in whole or in part, our diagnosis ordinarily is open to but little question.

The finding of sugar or glucose still proves a surprise in the routine uranalysis. The patient rarely gives us the cardinal symptoms of diabetes mellitus. He is "run down," "nervous," weak, but proffers no hint concerning his diet or the amount of urine passed. He is treated for "neuralgia of the stomach," "hysteria," "congestion of the nerves," "nervous breakdown," or other disorders of a more or less recognized existence. Then, when his urine reduces Fehling's solution, we gasp out, "Oh, yes," while the patient acknowledges that he eats and drinks voraciously, is especially fond of sugars, and voids much urine. But he rarely volunteers this information, believing these to be evidences of good health. Some of these people complain only of a persistent pruritus; others, of "numb feet" or a sensation of walking on stilts, many more, of a persistent lumbago that increases in intensity as the day draws to a close.

The Troublesome Gonococcus

Time was when I reported, in writing, the gonococcus whenever found to be present. Experience, however, has taught me that this is not always necessary, nor is it advisable in every instance. If sufficient evidences of the present trouble are at hand, I emphasize these. Still, in certain cases, where the presence of the gonococcus may have some bearing upon the diagnosis, I so inform the physician submitting the sample. "Impossible," the physician exclaims. But, in the end, he must accept the dictum of the lens, although often he may treat the finding as incidental

and merely as the result of some previous infection.

In one of these cases—a woman—I am certain that the gonococcus was the chief and probably the only cause of the complex of symptoms. But I dared not emphasize this thought. The pyelitis became a suppurative nephritis or abscess. Still I was not permitted to point out the invariable presence of the gonococci in the pus, and so the patient was operated on for "calculus". I do not know what the decision of those professionally interested was—it never was made known to me—but later examinations of pathologic tissue specimens convinced me as to the correctness of my belief. Death closed the scene, and the chief mourner little suspected that beyond a doubt he, himself, had been the murderer. These questions are grave ones and bring up a subject not within the scope of this communication.

A large number of examinations of the vaginal secretion convince me that the gonococcus may be expected to turn up almost any time. In fact, I breathe a sigh of relief when I fail to find it, and feel the lifting of a great responsibility.

In the urine of the female, however, we are less likely to find this pernicious microbe. But what of the husband's urine?

I recall a story which went the rounds several years ago. A certain husband censured his family physician, saying: "You have examined my wife's urine. Surely, you can tell me something from that?" Whereupon the physician, who already had arrived at a half-conclusion, replied: "No, not yet; but if you will bring me a sample of your own urine, possibly we may both learn something." This man, who was really intelligent, did not take offense, but saw the point and did as requested. A probable diagnosis of beginning gonorrheal salpingitis was made and proved correct, in spite of the many possibilities for error.

Do Not Form Hasty Conclusions

Before leaving the subject of microorganisms, I wish to utter a caution. There is a tendency to term any bacilli found in the urine "colon bacilli." Proof of the identity of this germ, even when present, is exceedingly difficult and cannot be secured by morphology alone. I fail to see just why this idea has gained ground.

Colon infections of the genitourinary tract are not uncommon, but they demand extended studies when we attempt to prove their presence. Now and then, even in leading journals or before learned societies, we see reports of these cases. I recall but two instances in several hundred genitourinary infections where I believed the colon bacillus chiefly guilty, and one of these was open to doubt. The other, a case of cystitis, gave a foul urine of a high acidity and, in addition to other evidences of infection, contained very many "short bacilli" which, when subjected to certain intricate cultural and chemical tests, left no doubt as to their true character.

While presenting these examples, I desire to note another case, which proves we cannot be too cautious before final diagnosis.

A certain urine sample showed traces of glucose. But the bottle bore a label reading "Maple Syrup Compound." In this case, the label alone led me to be suspicious —and luckily. For the next specimen from the same patient showed no sugar, nor did any of a number of samples taken later. The reason was obvious. The first bottle had not been well cleansed before the specimen was introduced. In the same way, I am certain, that indications of albumin or even of bile might be obtained, although I recall no such occurrence in my work. The bottle should be thoroughly scalded and a clean cork inserted.

Many of the minor surprises encountered I must omit. Thus I have passed by consideration of numerous urinary findings which have almost daily assisted me in important diagnostic problems. Among these are albumin, blood, the various minor protein bodies, the acetone series, indican and related compounds, ammonia, total solids, urea, mineral salts, epithelium, and so on. Certain of these I shall touch upon in my next communication.

The physician may wonder why I am omitting uric acid and its wonderful manifestations. Every month I receive booklets which praise the merits of proprietary compounds of hazy composition,

supposed to dissolve the terrible uric acid *in vivo*. Most of these articles are by Calcutta, Bombay and other physicians not easily interviewed, but if uric acid is one-half as mean a villain as they portray, it should be ashamed of itself. Although these compounds appear to be manufactured and marketed in America, it seems that our physicians and laboratories fail to meet many of the cases.

Far be it from me to assert that a true uric-acid diathesis does not exist. But that it is commonly met is yet to be proven. So far as reaction of the urine is concerned, uric acid certainly has no effect upon the degree of acidity. That uric acid and the urates are undoubtedly increased (as are also other salts) incident to several diseases of known pathology, is undoubted. Still, this excess needs but little besides the body-heat to keep it in solution, it usually precipitating only after the voided urine cools. Almost anything which aims at the primary pathology of the disease incidentally decreases the uric acid and urates.

But we are here to learn. A recent issue of an advertising pamphlet contains a comprehensive report showing how the wonderful solvent also disfigures our friend the gallstone, and that while he slumbers peacefully in the gall-bladder. It makes little difference as to the composition of the stones, their doom is sealed. And, to be sure, the bones of the body are not even touched by this magic arcanum.

Some of these patent-medicine concerns also promulgate methods of urine testing in which considerable time is devoted to the urate sediments. One of these days, some of this stuff will get away and reach the lower Niagara and—such are its mystic powers—quickly dissolve out those monstrous archaic boulders and smooth the river's rapids as abruptly as the tempestuous sea of Galilee upon occasion became calm in days of yore; or, maybe, oil prospectors will substitute it for drills when piercing the strata of refractory rock.

Some American physicians, I fear, are helping along these blatant fakes; but some day this pernicious monthly will cease to arrive. Uric acid, the monarch of days gone by, must now prove its right to the throne. Else there will be usurpers in plenty. Some of these are at hand already.

And with these introductory notes, I shall reserve the more important urinary reports for my next paper, which will be "Uranalyses Which Have Cured Patients and Saved Doctors' Reputations."

Sexual Impotence in the Male

Its Causes and Treatment

By WILLIAM J. ROBINSON, M. D., New York

Editor of "The Critic and Guide," and "The American Journal of Urology;"
Author of "Never-Told Tales," etc.

II. (Continued from November, 1911)

CONSTITUTIONAL DISEASES. There are a number of constitutional diseases which may result directly or indirectly in partial or complete sexual impotence. Those diseases are diabetes, leukemia, myxedema, Addison's disease, pernicious anemia, locomotor ataxia, various forms of myelitis, tumors and injuries of the brain and of the spinal cord, and a few other conditions.

This part of the subject, however, is of little interest to us, because the original disease is so much more important than the impotence, which latter, under these circumstances, becomes a mere unit in a great symptom-complex that completely overshadows it; and both patient and physician are satisfied to leave the impotence alone, and to devote their energies to the life-threatening malady.

Typhoid fever, diphtheria, erysipelas, and malaria, are sometimes followed by impotence. I have seen one case of impotence following typhoid fever, which resisted all treatment. The typhoid fever had been in that case very severe, the emaciation was extreme, and there was great atrophy of

the testicles, these being reduced almost to the size of two beans.

Tuberculosis. While there are some cases of impotence due to tuberculosis, the fact remains that in the majority of cases this disease has the contrary effect, increasing the sexual desire enormously, and, not so infrequently, the sexual power. Whether this sexual erethism is due to some toxin circulating in the blood, or whether the excessive sexual indulgence results from the patient's staying at home, doing nothing and partaking of tonics and nutritious food, the fact of excessive indulgence of tuberculous patients is well established. In this egotism and erethism they become burdensome to their wives and ruinous to themselves. There are cases on record where consumptive patients had intercourse (with their poor wives, of course—they have to stand everything) on the night preceding their demise.

I have had a married tuberculous patient who, besides abusing his wife to the limit of her endurance, consorted frequently with street-women, until he became infected with syphilis, for which disease he came to me to be treated.

Obesity. Obesity as a cause of impotence, has been questioned by some physicians. I have no doubt of the direct causal connection. When the obesity is very rapid in its onset, the impotence may be complete; and treatment which reduces the obesity at the same time brings back the potency. The rationale of this causal relationship is hard to explain.

Alcoholism. That alcohol acts as an excitant to the sexual appetite is well known; but its action on the power is variable, depending on the quantity consumed and the form. Small amounts often act beneficially, large quantities act detrimentally, sometimes preventing erection altogether. As to the form, beer is the most injurious. As to chronic alcoholism, its effects are almost invariably pernicious, and many chronic alcoholists are completely and hopelessly impotent.

Worry. I consider this one of the most important factors of sexual impotence. That great and continuous worry will diminish or abolish one's sexual desire more than anything else will, is a well-known fact. It is not so well known, however, that it may also induce relative or complete impotence, and what is more, the impotence may be permanent. In most cases it is continuous, although it passes away, gradually, after the cause has disappeared. But it may require many attempts, considerable sexual education, before the potentia is brought back to its former condition.

Fright. Severe fright sometimes acts as a cause of temporary impotence, but only fright having some connection with the sexual act. We know of an instance where a man was interrupted in the act, by the husband of the woman and several detectives who broke into the door, and he was practically impotent for nearly a year. Each time when on the point of performing the act the fateful night would come to his mind and the partial erection would promptly subside.

Intellectual pursuit. Nature resents burning the candle at both ends, and it is very rare that people who devote all their time to severe intellectual work do not pay for it by sexual weakness or impotence. This refers to purely intellectual work—mathematics, science, research, philosophy, and so on. Particularly is it apt to attack those who are engrossed body and soul in certain "problems." The case is well known, of a mathematician, who, during each attempt at intercourse, would be disturbed by an abstruse mathematical problem, and the attempt would fail. It was necessary to put him under the influence of alcohol before he could consummate the act. Another instance of the aid that Bacchus often renders Venus. A medical investigator told us that, while interested in a certain question which took away every minute of his spare time, he lost both desire and ability for over eighteen months. Pursuits that belong to the arts,—belles-lettres, poetry, the dramatic art, sculpture, painting, and so on, have a rather opposite effect: they increase the sexual desire and perhaps also the sexual power.

Riding. Horseback and bicycle riding may aggravate an existing prostatitis or a posterior urethral congestion, and thus may contribute to premature ejaculation. But

it cannot be considered a direct immediate factor of sexual impotence, and I consider the stories of officers having become impotent, as the result of long horseback rides, mere fables.

Automobile Riding. Fast automobile riding has recently been brought forward as a cause of impotence, and there are good grounds for believing that there is a real, and not a fanciful, cause. The jarring, the constant worry and anxiety which are inseparable from fast and furious automobile driving and riding, induce a state of neurasthenia that is responsible for the impotence. The impotence is generally of a temporary character and yields to treatment at once, when the sport, or rather the furious speed, is given up.

The Hypodermic Use of Lobelia

By FINLEY ELLINGWOOD, M. D., Chicago, Illinois
Editor of Ellingwood's Therapeutist

EDITORIAL NOTE.—Since the appearance of the article upon the hypodermic use of lobelia in diphtheria, by Dr. E. Jentzsch, in CLINICAL MEDICINE, *in 1908, there has been great interest in the action of lobelia, when given hypodermically. Dr. Ellingwood presents a close clinical study of this subject, and brings it right up to date. He shows that this drug has a very wide range of usefulness.*

FOR more than one hundred years lobelia has been before the medical profession, and yet so contradictory have been the reports that have been made concerning its action and so much personal interest and prejudice have been involved in the statements that have been made, that up to very recently it has been comparatively an unknown remedy.

A writer, Dr. W. W. Cox, in the December, 1911, issue of THE AMERICAN JOURNAL OF CLINICAL MEDICINE, brings out some very interesting facts, but says very little concerning the action of the remedy hypodermically. He plainly says "there is no agent in the entire materia medica with which lobelia can be compared," and this statement is true.

The most recent observations have conclusively proven that the remedy acts differently when given hypodermically than when given by the mouth, and as but brief space is allowed to my article, I will only present a few of the facts that have come to our observation more recently concerning this remedy administered hypodermically.

It is necessary that a nonalcoholic preparation be prescribed, if pain is to be avoided in its administration, but as yet no such preparation has come into general use, although we are now experimenting with a most promising one.

Dr. Jentzsch, of Chicago, was the first to suggest (AMERICAN JOURNAL OF CLINICAL MEDICINE, page 913, July, 1908) the new field for the remedy in its hypodermic action. He had saved the life of his only son, when dying from diphtheria, after antitoxin and other remedies had been used, and his further investigation not only proved to him that it was a valuable remedy in that disease, but brought out, through his own and the investigations of other physicians who experimented with him, very many important facts, a few only of which are presented in this article.

The remedy, as Dr. Cox says, reduces the pulse and temperature to normal. On the other hand, when there is great depression and collapse, the remedy at once seems to restore a normal balance, and in its action seems to cover the field of strychnine, atropine, glonoin, and digitalis almost at once. At the same time it is a proficient antispasmodic and a sedative. It equalizes the circulation and restores tranquility of mind in excitable cases. I am not willing to ascribe anodyne properties to it, and, yet, through a direct influence upon the causative conditions, pain is nearly always quickly removed. In spasmodic pain its influence is immediate and satisfactory.

It will be difficult to sum up the total experiences of various investigators in the

use of the remedy in diphtheria, but those who do not depend exclusively upon antitoxin, who prescribe for the exact and specific indications with reliable remedies, believe that the treatment of diphtheria with these remedies and with hypodermic lobelia will yet prove even more satisfactory than the course now adopted with antitoxin. This is mainly because of the following reasons: Antitoxin only antidotes the poison; lobelia not only antidotes the poison, but it is a powerful and immediate restorative to the diseased functions influenced by the absorbed poisons. It tends to restore the circulation, the nervous control and functional action of all organs of the body. In laryngeal cases it promotes oxidation of the blood and encourages normal respiration, while it acts similarly to antitoxin in loosening up and removing the laryngeal deposits.

Value of Lobelia in Respiratory Diseases

In the treatment of croup, whether it be spasmodic or membranous, the results have been satisfactory, and, in fact, some of the reports are indeed enthusiastic. It certainly is broad in its influence, and in this immediate effect it is of course a desirable remedy.

It controls the temperature in tonsillitis, assists in abating the fever and overcoming depression, and with other indicated medcines is counted as an important auxiliary in the treatment. I am quite sure it neutralizes an excess of the urates and uric acid, thus explaining this latter influence. It should thus be beneficial in rheumatic conditions.

In the treatment of asthma it is a brilliant remedy, as a single hypodermic injection will usually control a spasmodic attack, and two or three injections daily will soon materially abate an attack of bronchial asthma, provided there are no heart complications. If the condition is due to disease of the heart its influence is not highly satisfactory.

In the treatment of bronchitis and pneumonia it will be found a most important auxiliary. In fact, I am inclined to say that in the treatment of pneumonia the regular profession *has no one single remedy* that will so fully abate all the phenomena and tend to induce a normal condition more readily than lobelia. It exercises so direct an influence upon the capillary circulation, it so strengthens the action of the heart and improves the respiration that its influence is immediately apparent. In threatening cases and in cyanosis, it has to be used only once to impress the physician with the promptness of its action. So far in about two percent of the cases it has produced nausea, and occasionally it has produced general relaxation, especially in feeble patients, but its general influence is that of an up-building or restorative remedy, and in all the other cases it can so be depended upon.

In pneumonia in infants, where the preliminary stage of engorgement results in early cyanosis, 10 drops can be safely administered, and the dose repeated every one, two or four hours, with no expectation of any unpleasant results whatever. In cases where a fatal termination threatens, from 20 to 40 minims should be given and repeated within two hours. Every report of its action in pneumonia, and especially in bronchopneumonia, has, so far, been favorable.

It Relieves Angina and Prevents Heart Failure

The remedy is a valuable one in angina, relieving the pain more promptly even than morphine, leaving only a feeling of exhilaration; no depression. There are so far only two cases reported in which favorable results were not obtainable.

As a restorative remedy in acute heart failure from any cause, in cerebral apoplexy and in cases of asphyxia, either from morphine, from other causes, or from drowning, the action of the remedy has been compared with that of strychnine and nitroglycerin, and in nearly every case the comparison has been in favor of full doses of this remedy, in preference to the other two. The restorative influence of the remedy can never be appreciated until it has been observed in many cases. We have no single remedy that will accomplish similar results. This statement will not be believed by those who do not try the remedy, consequently we ask them to try it, with unprejudiced judgment.

In convulsive disorders its influence is characteristically brilliant. It is no better than veratrum in eclampsia, except that there are no unpleasant after-effects.

Several cases of tetanus in horses are reported as having been quickly restored by it, but those who have used large doses of gelsemium with carbolic acid in direct injection for tetanus are not convinced that lobelia is superior to that treatment, but they find only good results by combining lobelia with the gelsemium in the treatment of this otherwise usually incurable disorder.

In the treatment of tetanus there are two conditions that must be met. One is the antagonizing of the action of toxins and the destruction of those that remain in the organism; and the other is the essential antispasmodic influence of the remedy. While these two influences are closely combined in lobelia, as yet none of us have sufficient confidence to depend upon its antitoxic influence alone; consequently we should combine 20 drops of 95-percent carbolic acid, 20 drops of gelsemium and from 20 to 40 drops of lobelia in a single injection where the toxic spasm is fully developed, and would repeat this after two, three, four or six hours. One physician has treated from twelve to fourteen cases with gelsemium and carbolic acid with the same quantity of glycerin (20 minims each) and has saved every patient. This is a reliable report and perfectly authentic, and can be substantiated, although it is altogether too favorable to be believed by those prejudiced. But as the cases can yet all be produced with sufficient evidence, we cannot do other than believe.

Hypodermic lobelia is being tested in epilepsy. So far very little has been accomplished, except to increase the intervals between the convulsions and relieve the force of the convulsions. In one case only did the convulsive attacks completely disappear, and there was no assurance in that case that they would not return, as after eight months the patient was attacked with an acute disorder from which he died; but there is considerable promise and hope in eight months' relief of a patient who had been having from one to four convulsive attacks a day for some years.

In gastric and in intestinal disorders of a spasmodic variety, lobelia will exercise an immediate influence, but otherwise its field is not wide.

It is a stimulant to the liver, and has been used in cases of gallstones where its influence was thought to be unusually beneficial, but this field has yet to be explored and fuller observation to be made. Its antitoxic effect in diphtheria and in tetanus would suggest its use in acute conditions of toxemia from food poisoning. Quite a number of cases have been reported of ptomaine poisoning where this remedy alone has accomplished a prompt restorative influence. The field of its indications is fully included in the symptoms that occur from acute autointoxication. This also explains its influence in eclampsia, as, to an extent, it antidotes uremic poisoning.

Eight cases are on record of individuals who ate toadstools for mushrooms. Two were in a condition of complete collapse when this remedy was used; four of the other six were very ill; in two the symptoms were developing. From thirty to forty drops of the remedy were given in each case and repeated in from two to four hours. The immediate effect of this remedy was unmistakable. All other agents used exercised so little influence, as compared with the broad action of this remedy, that there could be no doubt as to its influence. All the eight patients were restored, and in no case of this character has it failed.

Its prompt influence in syncope, asphyxia, heat-stroke, and cerebral concussion have been mentioned, and if the remedy had no other influence than that which it has shown in the cases of this character, it would be an almost invaluable remedy.

Those who have used it in chloroform and ether asphyxia, after prolonged experimentation in most cases, now resort to this remedy first, in preference to strychnine, nitroglycerin, digitalis or other restoratives. In perhaps a thousand cases it has now been used to overcome the symptoms, more or less severe, of the untoward influence of anesthetics, and those who have used it so are favorably impressed with its action.

Hypodermic lobelia, as I have stated, is positively antagonistic to blood stasis,

acting directly upon the capillary circulation, thus relieving congestive disorders and proving a boon in these cases. In congestive dysmenorrhea, with cold skin and cold extremities and with general depression, feeble pulse, and severe cramping pains, a single dose of from twenty to forty minims is of immediate benefit. Later, as indicated, it may be repeated and only beneficial results will follow.

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[We have received a report from a physician who has employed lobeline sulphate hypodermically, with brilliant results, and without the severe pain so often caused by lobelia. This will be printed later.—Ed.]

A Brief on Salvarsan

By G. FRANK LYDSTON, M. D., Chicago, Illinois

Professor of Genitourinary Surgery and Syphilology, Medical Department, University of Illinois

DESPITE the universal use of salvarsan, our knowledge of the value of the drug and its limitations is still far from complete. From my own observations and experience to date, my conclusions may be set down briefly as follows:

1. Salvarsan is a most valuable symptomatic and emergency remedy in syphilis.

2. While intravenous injections of mercury are very effectual in many cases, salvarsan can be counted on as more reliable in emergencies than mercury.

3. Relapses are more frequent and earlier after an apparent cure by salvarsan than after an apparent cure by mercury—in whatever form the latter may be given. In brief, the beneficial action of mercury is more prolonged than that of salvarsan.

4. Salvarsan is more effective when mercury is given both before and after its administration. It is not wise to rely upon salvarsan alone.

5. My experience with salvarsan has not changed my opinion of the necessity of a prolonged course of treatment for syphilis.

6. Salvarsan intravenously given is less irritating than bichloride of mercury.

7. Where slips or faults of technic occur, mercury bichloride and salvarsan are both very destructive of tissue.

8. The lesions resulting both from bichloride and salvarsan accidents are exceedingly slow of recovery.

9. Salvarsan mummifies the tissues, whenever solutions are used. It is especially destructive of skin and cellular tissue.

10. The indurations following intramuscular injections of salvarsan mean mummified tissues. Suppuration and necrosis are rare, because the injured tissues usually remain aseptic.

11. Suspension in oil lessens the destructive action of salvarsan.

12. Intravenous injection of salvarsan is productive of little discomfort where accidents do not occur. The action of the drug is rapid and its elimination relatively rapid as compared with the intramuscular injection.

13. Injections beneath the skin and into the cellular tissue should be tabooed.

14. Intramuscular injections of oily suspensions—preferably suspension in iodized oil of sesame—are especially useful where slow, steady action of salvarsan is desired.

15. Accidents with salvarsan are more frequent than some would have us believe.

16. The chief contraindications are serious, advanced brain and cord lesions, retinal degeneration, heart lesions, and renal disease.

17. The administration of salvarsan, either intramuscularly or intravenously, may, under exceptional conditions, be made an office operation; but it is better to have the patient in the hospital, if possible. The dangers of infection are the same as for the use of bichloride of mercury, and, therefore, slight, with ordinary precautions. The pain and consequent disability, however, often are marked in the intramuscular method, and the patient is better off in the hospital or at home. The local results of

the intravenous method are *nil*—barring accidents. But the effect on the heart and nervous system may be sufficiently pronounced to make it safer to have the patient situated so that he can at once go to bed.

18. Time alone can decide whether we are any nearer permanently curing syphilis and in a larger proportion of cases since salvarsan was introduced. I have had and seen some marvelous results—results which prove at least the temporary efficiency of the drug in destroying the spirochete. In one of my cases a urethral chancre was completely healed on the fourth day, and the eruption—papulo-roseolaceous—disappeared in thirty-six hours.

The Future of Medicine

By MAYNARD A. AUSTIN, M. D., Anderson, Indiana

EDITORIAL NOTE.—We are in the midst of an economic revolution. It isn't coming—it's here; and medicine is having its part in it. Undoubtedly there will be great changes in the character, scope and recognition of the doctor's work. Some of these changes are forecast in Dr. Austin's article, which is the first of several to be written upon this general subject.

IT is probable that in no business or profession have there been more changes than in the practice of medicine. Empiricism and Chauvinism have given way to an era of broadmindedness that bespeaks for the future a time when the medical practitioner will be valued in the community at his true worth. The profession is being reorganized, and the process of elimination of the unfit is gradually working out its own salvation. Within the last decade it needed one of our great men to address the American Academy of Medicine in these words:

"The doctor's highest duty is to be honest and to fight for honesty in his profession and in the State. He should abhor cowardice in others, as in himself; for cowardice is the parent of dishonesty. The professional coward and the commercial coward have aided efficiently, if perchance unwittingly, the present degradation of the body politic and the body medical. Moral cowardice is a characteristic both of corporations and individuals in this twentieth century, and is the result of the worship of the 'almighty dollar,' which has usurped the place of 'self-respect' in men's minds. To those who may object to any criticism of my profession, my city, or my state, I reply that I know of no better way to remedy evils than to recognize their existence. An honest and just investigation of suspected corruption and an honest and brave avowal of discovered wrong are the first steps toward amelioration of evil. He who is afraid to see and dare not mention the misdoings of himself and his colleagues is his profession's worst son. He who cries out for concealment under the plea of loyalty is no better than the scheming political leader whose cowardice and insincerity call forth the reprobation of upright citizens. It needs no argument to prove that cowardice begets lying, and that a liar is essentially a coward. Reformation comes from honest introspection, which begets respect and honor from the outside world."

The work of the physician is peculiar in that it develops unconsciously an element of egotism that is the main cause of his later corruption. His work is self-centered. He is usually the sole consultant and he sees only those who believe in him and his ability. Their praise is unstinted, while the evil that may be said about him he seldom hears.

It is well for the profession, then, for the medical man to consider some of the many things pertaining to himself and his work; taking the individual as a unit and the possibilities that surround him as a whole. Concentration and cooperation in all lines of human endeavor are the aim and in many respects will be the ultimate attain-

ment, in professional as well as in mercantile lines. America is too young as yet to suffer the consequence of an excess in the supply of labor. Unionism has gathered the few together and made them absolute in their demands.

The Economic Condition of the Doctor

Europe can furnish little to compare with that which we know as the American strike. The laborer in Europe who leaves his work because of a supposed or real grievance has his place filled too quickly for a discussion to arise, the excess being so much greater than the demand. In certain lines in this country there is a nearing point where supply and demand are well balanced and where in a few others the supply will be greater than the demand. The profession of medicine is one of the latter.

The average income of the physician practising in the United States is said to be from $600 to $700. This means much to the prospective student who enters a field that can offer him on the average less than two dollars a day. A recent issue of *The Journal of the American Medical Association* records the fact that two hundred physicians have committed suicide in Chicago. An editorial in *The Lancet-Clinic* of June 12, 1909, dealing with the relations of the present economic conditions and the physician speaks, as follows:

"Physicians must realize that they, themselves, are not the active producers, no matter how unpalatable the truth seems; they are dependent almost solely upon the prosperity of their clientele; that, necessary and beneficent as is their work, they are but a part of the great economic machine and must exert their immense influence for a readjustment of conditions upon a more just basis."

To the fact that the medical practitioner is not a producer must be added, however, the further fact that his work is second to none in economic importance in the conservation and expansion of those who are the greatest producers. The most perfect machine ever invented depends directly upon the care and attention of some machinist, to see that it is oiled and cleaned, to see that it has a sufficiency of raw material, and that the finished product is not permitted to choke its efforts. Malaria, typhoid fever, smallpox, and yellow-fever have, for centuries, made vast areas of the earth's surface unproductive or uninhabitable. Sanitary neglect has decimated more armies than all the battles in the world's history, but the physician and his sanitary knowledge have given back to the producer these heretofore waste places and reduced the mortality in civilized warfare fully fifty percent. The men who are able to do these things are certainly as great, if not greater when they overcome the sources of pandemic desolation, than are the producers who merely take advantage of nature's opportunities.

Again, it must be considered that no men of any other class or other profession work for their own personal undoing when they serve their community best, like we physicians. To stay an epidemic is a direct financial loss to the medical practitioner.

The president of the British Medical Association, in his address last year, stated that his predecessor averaged for many years an income of $1500 from his attendance on typhoid alone, but the income from this source had decreased so much in the past few years that it would not now average two percent of the former sum. We see what medical science is doing in Panama. We know what it did in Havana, we know what it is doing in the Philippines, and what it is beginning to do and what it will do in South Africa. The men who can make all these places habitable and change their desolation to a garden-spot are incomparably greater than "the man with the hoe." The practitioner of medicine in every state in this Union, in every county, and in every town is teaching these lessons of sanitation, and as the lessons are well learned, his services are called for less frequently.

The New Situation Must Be Met

The situation, then, that must be anticipated is the necessity of fewer doctors and a diminishing income, the latter made much less to the individual if it is divided among

a large number. The socalled proprietary medical schools have become university institutions, not of their own free will and accord, but because they saw the handwriting on the wall and realized that professional prestige had passed the point where it alone could be made a source of income. The greatest surgeons in the world have no college affiliation, so also some of the greatest in all other lines of medical work. The organization of trades, the cooperation of labor, and the communization of interests have placed the hazard of sickness and accident where of necessity the wage-earner must protect himself. As unpalatable as the taste of contract practice is to most of us, it is a condition that has been arrived at from economic necessity. In Europe these problems have been gone over, and in spite of medical cooperation, medical organization, and every other means, the "krankenkassen" reign supreme and dictate to the profession the latter's terms of livelihood.

Directly, then, the physician must adjust himself to meet a diminished income, or rearrange his work on a more equitable basis, or charge according to the income of his clientele. Not from desire, but of necessity, America must follow in the footsteps of Europe in arriving at a solution of many economic problems.

A representative of *The London Express* writes as follows, after a study of the situation in England: "Medicine as a profession is certainly not attracting young men of brains and position as it once did. The profession, for one thing, is sadly overcrowded, but good men are very much required. The modern youth seems to object to the long preliminary work and drudgery, and unless a young doctor is prepared to buy a share in a practice or has exceptional skill and influence, he must be ready to work a long time before he can afford a motor car."

An editorial in another journal voices our distress in these words: "Oh, that we were back in the olden days—the days when doctors were not only doctors, but kings in their communities, too! Oh, that we were back in the good old times, when medicine was untainted and pure and the devilish spirit of modern commercialism had not inoculated its rank and file! But I fear this is but a weak voice from the wilderness and its cry will be drowned ere the multitude hears."

In France, in Germany, and in England (as also in this country) the medical associations and the number of prospective students have been directly lessened by higher qualifications. This alone is insufficient, and in England the expedient is being tried of sending out a special circular to all the public schools. This circular states the true economic conditions existing in the medical profession in Great Britain. It particularly calls attention to the limitation of the field of practice as disease becomes more preventable, and that the chances of being able to save even to the extent of the capital expended in education are, in a large proportion of cases, slight, while reasonable provision for old age, after family expenses are met, is difficult and often impossible. The circular dwells on the fact that it takes at least seven years and costs from $5000 to $6000 to secure a proper training.

An Examination Into Contract Practice

Much has been said and written about club and lodge practice, yet it is something that not only must be endured but must be viewed from the standpoint of economic necessity. This arrangement works a hardship on every physician, yet it enables persons in certain localities to secure medical attention, who might otherwise be neglected. It probably secures a minimum fee from others in the community who have been in the habit of contributing nothing whatever. The fees are unsatisfactory at their best, yet no community seems too small in which some club or lodge cannot find a physician whose services may be secured for little or nothing. The presence of that class of physicians who accept the little that is offered them ultimately lowers the general standard of fees and service, because it is the misfortune of the average physician to have no other income than from his profession.

In this country Dr. G. E. Holtzapple of Pennsylvania has made a most careful

analysis of the situation, basing his deductions upon replies to letters sent to all parts of his state. From these letters 105 replies were received.

The results of his investigation show that in the 105 towns under consideration, 63,238 individuals, either members of fraternal orders or their families receive treatment at an average annual price of two dollars a member. Estimating this on the basis of population, 3 percent of the inhabitants are receiving free medical treatment. As the population of the towns considered amounts to about one-third of the entire population, it is estimated that about 200,000 individuals in the State of Pennsylvania receive practically free medical treatment.

The reports show that the average amount paid is one dollar per annum for each member when only the member alone is entitled to treatment, and two dollars yearly per member when his entire family receive treatment. This would amount to a maximum of one dollar for each individual for twelve months' medical attention, equivalent to a little over 8 cents a month, or about 2 cents a week.

In considering the personality of the physicians now engaged in contract practice, they may be put into three classes: Young men just beginning medical practice and accepting such positions as temporary expedients; men of all ages who have failed to establish well-paying practices; those well established and doing a lucrative business, but selfish and avaricious and desirous of securing all the money within reach.

The objections to contract practice are that it places the practice of medicine on a purely commercial basis, inhibits organization, prevents the physician from obtaining proper remuneration for his services, places a blight on medical progress and reduces the physician who engages in it to the position of a poorly paid promoter for the organization by which he is retained.

The Commercial Aspects of the Problem

The organization of the medical profession or of any other line of effort where supply is greater than the demand cannot be sufficient to eliminate the undesirable features that must be acknowledged. Organization never has made, and never will, certain men better in their treatment of their fellow men or prevent a man from making a better living if he has the opportunity, much less cause him to suffer from want if his needs can in any measure be satisfied. Unfortunately the medical profession contains many men of the latter class. Unfortunately higher qualifications for entrance into medical schools and all that may be demanded of prospective students of medicine cannot overcome the necessities of competition and the actualities of life that must be met when a student becomes a practitioner. If the church, an organization the oldest in the history of mankind and the greatest in our knowledge of ethics, with all its opportunities and the wealth of money expended for religious purposes, can command the affiliation of but three percent of the world's population, what can the trivial efforts of other organizations ultimately show?

Didactics on morality, on duty and on all those things that medicine should stand for are able to reach but a limited number of the profession and never reaches those who could profit most.

Medicine as a science has advanced, as an art it has receded from the high place that our forefathers occupied. It has in many respects become a trade rather than a profession. It is estimated that a third of the graduates in medicine seek other lines within five years after their graduation.

Profession Versus Trade

President Fraunce of Brown University has this to say in defining the difference between a trade and a profession:

"Trade is occupation for livelihood; profession is occupation for service to the world. Trade is occupation for joy in the result; profession is occupation for joy of the process. Trade is occupation where anybody may enter; profession is occupation where only those who are prepared may enter. Trade is occupation taken up temporarily, until something better offers; profession is occupation with which one

is identified for life. Trade makes one the rival of every other trade; profession makes one the cooperator with all his colleagues. Trade knows only the ethics of success; profession is bound by lasting ties of sacred honor."

Bernard Shaw on the Present-Day Doctor

The Medico-Legal Society of London recently invited Mr. Bernard Shaw to open a discussion on a "socialist criticism of the medical profession," and *The London Lancet* has devoted several pages in commenting upon Mr. Shaw's remarks.

Among the things said by him, Mr. Shaw declared that the doctors of the present day had been driven to the position of a private tradesman which caused them to lose most of the professional pretensions and delicacies. The doctor was forced by circumstances to go into commerce and sell cures because that was what the public demanded. The extent of the competition made the average doctor an abjectly poor man, and the mass of the medical profession had to get what they could and be glad of what they got. He mentioned the fact that the average patient needed not medicine nor operations, but better food, better clothing, better hygienic surroundings. Yet, what was the good of prescribing these things to that ever increasing larger class of unfortunates who can scarcely keep soul and body together?

Shaw furthermore deplored the fact that the doctor was expected to do everything connected with his profession, while much that is demanded of him is more than his ability can furnish. Again, the most skilled in the profession have much of their time occupied with trivial matters. Continuing, he said:

"In order to get the maximum of hygienic influences and the greatest economy in using the skill of the profession, it will be necessary to get medical men organized, so that different grades can do different work, and that the mere routine will not be left to the best men to do. Such organization is altogether impossible where private practice is the rule. It could be done only if the profession were organized publicly by the State. A private practitioner could not get ahead of the prejudices of his patient, and one of the things from which the doctor ought to be released is that abject dependence upon his patient."

Medical Practice Under State Control

For the betterment of the community it is inevitable that many of the privileges of the individual be entirely under state control. As we now have compulsory education, so will the future show the necessity and bring about the universality of school inspection and compulsory correction of preventable deformities and defects, of other parts of the body as well as the eye, and ear, and nose, and throat. As the state controls such diseases as smallpox and yellow-fever, so will the community gradually extend its authority and ultimately make the sufferer from every infectious or contagious disease a ward of the state or municipality, until such a time as the possibility of his spreading the disease shall be eliminated. Indeed, the possibilities of state control offer Utopian prospects to future generations, and with the elimination of the false modesty which has prevented the dissemination of proper knowledge of self and sex, we can almost dream of a time when man will be less a brute in his sexual relations, and thereby eliminate the problem of venereal infections.

Switzerland and New Zealand are dealing with these problems in advance of any other country, Switzerland having a number of cantons in which the physician is the paid servant of the municipality, each physician having a certain district and caring for all who need his services. For this service he receives a salary of from $1200 to $2000, and is retired on a pension when disabled during active practice or after a certain number of years in service.

We Are Approaching the Goal

That the situation is gradually making progress in this country is certain, as may be gleaned from this news item from *The Cincinnati Lancet-Clinic* of April 9, 1910:

"Efforts are being made by members of the Cleveland city council to reorganize the ward-physician branch of the health department, by engaging ten district phy-

sicians who would be required to devote their entire attention to the demands of the office. At present twenty-seven ward physicians, receiving each $600 per annum devote what time they deem proper to the needs of their indigent patients, as is the custom in Cincinnati, Chicago, and other large municipalities. It is argued that the present system of assigning a physician to each ward is unsatisfactory, because in some districts the residents do not require the services of a city doctor. The intention is to increase the pay of the ten men to be selected, insist on their relinquishing private practice, and to mark their offices in such a way as to render it easy for people to locate them."

In concluding his address mentioned above, Mr. Shaw said: "You must make up your minds that the inevitable result is the socialization of the medical profession. As to what will happen when you have the doctor in the responsible, dignified, and independent position of a public servant, instead of a private tradesman; as to what will happen to the surviving private practitioner, I do not know. If a doctor finds himself in the position of depending on the caprice and ignorance of patients, he will always, if competent, under socialism, be able to get an independent position in the public service, and if he elects to continue in private practice, he will not be compelled to make the humiliating concessions and the treacheries to science that he has now to do. Having the alternative of public service, he will be in as independent a position as if he were a public servant, and, on the other hand, the patient will always have a choice of getting public attendance; and so he, having the alternative, will be as well off with the private doctor as he will be with the public doctor."

The greatest clinic in America—or in the world, for that matter—has an organization on the plan suggested by Mr. Shaw. The success of the Mayos of Rochester, Minn., to whom I refer, is due in great part to the success of their organization. Patients first are classified, then the different physicians that must be consulted before the two famous surgeons themselves are seen, eliminate the trivial routine that takes so much of the average doctor's time. This routine work is done by high-class men trained in special lines, thus rendering mistakes a minimum possibility.

Medical organizations by county, district or state have not controlled and will not control the evils that have arisen in practice. The greatest good these organizations do is the social opportunities given to men in advance lines of work.

The future possibilities of the profession depend upon two things—better work of the individual, and greater cooperation among the physicians themselves. *To overcome the demands of the lodge and club practice, a higher grade of work must be done than can be afforded by a club or lodge doctor. When equally as good work can be secured from the lodge doctor for $2 a year as can be secured from the average practitioner who might charge $2 a visit, it is obvious that the former method will be taken advantage of by the laity.*

Economic Value of Life and Health

The economic value of life is being taken into consideration by the states and the national government as never before considered. School inspection, state hospitals, compulsory vaccination and quarantine, and the various laws enacted in behalf of hygienic measures foreshadow a near future when all matters of health and disease will be under state control. The necessity for better sanitation and health matters has brought into existence various health officers, district physicians, and health boards. Patients suffering from certain diseases are placed in quarantine and given free medical and other necessary attention, because the municipality has found it cheaper to suppress an epidemic than to permit the public to support one. In some states the list of diseases subject to municipal control is an extensive one.

The economic values of health will one day be an asset the possession of which will be required of every laborer by every corporation. It is possible for any manufacturer or corporation to demand a physical and moral standard from their employees. The expense of ascertaining the

facts concerning the physical condition and moral habits of an applicant would be but a trifle as compared with the increase in the efficiency obtained in any line of effort from a higher grade of employees.

Already many corporations in the East, and notably the National Cash Register Company in the West demand of all applicants that they pass a physical examination before being admitted to any department in the factory. The medical examination exacted by the latter concern is as complete as some insurance examinations and includes a urinary analysis. The question of venereal disease is gone into thoroughly, and a moral standard is required of the prospective employe as a part of the recommendations as to character.

The work of the wellfare secretary goes hand in hand with the work of the physician, and the gospel of fresh air, good food and clean living will remedy all the evils that are feared as the result of socalled race suicide. This latter, however, is but a name, for the condition it is supposed to describe is merely one of the stages of evolutionary progress in which quality supplants quantity.

How I Operated Upon a Kalinga Chief

The Thrilling Adventure of a Government Physician in the Philippines

By THOMAS E. MOSS, M. D., Bontoc, Mountain Province, P. I.

EDITORIAL NOTE.—Not many physicians have had experiences such as Dr. Moss describes. He was captured by a savage tribe of head-hunting natives, carried far into the mountain fastnesses, and there compelled to perform a capital surgical operation upon the chief. Failure meant death; success meant—but you must read the whole story. It will be concluded in our next number.

II

Encounter with Hostile Rancheros

THE curtain raised upon the next scene of this drama, or tragedy, of the trail when we were nearing a hostile rancheria which we had to pass. This rancheria was one which had been visited by the Kalingas of the Nanong rancheria a short time before and a number of heads been taken. It was located up on the side of the mountain, which towered above the river-bed. If the men of this rancheria had stopped to think, they would have known that we would not be fools enough to have attacked them in broad, open daylight, least of all from the bed of the river, because the place was almost inaccessible, and could only be reached by the greatest strategy, as was used by the Nanong warriors when they attacked before at night. The sentinels—which were women, as is usual—posted upon high points, saw us coming and raised the alarm by the signal war-cry, so that by the time we reached the base of the mountain on which the rancheria was situated, there was arrayed their whole fighting strength. Naturally I thought that right here was where I'd "get it in the neck." And mind, this is no slang expression when used in connection with Kalinga fighting, for that is exactly where one does get it. It is the ax, too, but not the same kind of an ax which the chicken gets; it is the beautifully curved and deadly head-ax of the Kalinga with which he severs the head of his antagonist.

I begged for my rifle and revolver, but could not get them; and I guess it was just as well that I didn't, for I should have immediately started hostilities from that distance while I had time, for after things got mixed up in a hand-to-hand fight, I knew we should stand no show, as we were only about three hundred strong, while they were a whole rancheria. Every old man who could see to throw a spear, every child who could wield an ax, and even women were armed, and ready to fight.

There were among those lined up only a few women, for most of the women of a rancheria snatch up their children and run to the bush and hide whenever their place is attacked; for the Kalinga warrior spares neither women nor children when he is on the warpath, though after the fight, if the attacking party is victorious, they do not kill the women and children, but keep them, with all the vanquished warriors who have run away. And ever after, these must pay tribute to the victors; and it is always paid, too, that is, until the vanquished rancheria has again become strong (if they ever do) when the tribute is stopped, and they are at war with each other again. But this seldom happens, for it takes many years for a rancheria to recuperate after a raid.

Occasionally two or three rancherias that have been conquered will unite into a single strong one, and then things are lively for a while. But this does not occur often—as I have said—for it takes years, and years for a depleted rancheria to regain full strength. For children must be born and grow to fighting size; thus the growth is exceeding slow. And the eye of the conquering rancheria is always upon them. Then there is inter-marrying, and while there is always the hatred of the conquered, things get rather mixed, and the men have grown old before they got a chance to even things up. So in this way there is rarely a revolt.

This particular rancheria had not been conquered, but had sustained a severe loss from the attack which had occurred a short time previously. They were now ready to fight in defending themselves, but, as the chief assured me, they would not attack us. This is the way it turned out, and there was no fight, for our party was not looking for trouble, having a more important thing to accomplish, namely, getting yours truly to the Nanong rancheria. We passed this hostile settlement amid silence upon our part and the calls of the others as they gave commands to their forces.

After passing this place we experienced no further trouble, as we were now entering the country where all the rancherias were subject to Nanong. We had to pass through many of these rancherias which were tributaries to Nanong, and in each we found the people lined up to see the "prisoners"; for, of course, they all knew of the expedition to capture me, and consequently there was great excitement when we arrived.

I can assure my readers, I did not feel over comfortable, seeing those black savages lined up on both sides of the trail, with their spears, shields, and head-axes all shining; it looked to me like the "gauntlet," with which the American Indian provides amusement for himself at the expense of a prisoner of war. There was nothing to do but to walk through. And walk through I did, each time hoping that it would soon end, and so it did. That is, the journey ended, but my suspense by no means was at an end when we reached Nanong.

The Home of the Nanongs

The Nanong is the most powerful rancheria to be found in that part of the Caudillara Mountains. This territory is drained by the Chico River, and the rancheria is situated on a kind of plateau about five hundred feet above the river. The latter makes a half-circle, thereby affording protection on both sides and front, while at the back the mountain, of which this plateau is a shelf, rises up thousands of feet, thus making this a most desirable spot for a settlement, beset, as these people are, with dangers every minute of their lives.

The houses were built close together, with the walls of one nearly touching those of another, and in some instances actually doing so. There was no plan of arrangement, all being in a cluster. The houses are not built upon posts, as are those of other rancherias situated in more exposed places, but raised above the ground only three or four feet. There is one window and one door. The sides consist of planks hewn out of logs, and the floors are made of bamboo strips an inch or two wide.

From the ground up to the floor are placed logs, completely penning in the space underneath the house; and here it is where

the Kalingas bury their dead, that is, when they have a chance to bury them at all, for many times the owners of the houses go out on a raid and never return, their bodies being left to the tender mercies of the rancheria which they attacked. If there is time and opportunity to do so, the attacking party carry off their dead and wounded, especially so if the dead have not lost their heads; but, even so, I have seen Kalingas carrying headless dead, the bodies being strapped to a bamboo pole and carried by two men on their shoulders.

Fig. 8. How a man "gets it in the neck" when fighting with a Kalinga

Sometimes the flesh is almost dropping from the bones when they reach home, but the Kalingas religiously stick to the task, and on their arrival place them in their last resting place beneath the floors of their respective houses.

All around the rancheria of Nanong there is a bamboo palisade protected by sharpened stakes and concealed foot-spears. The latter are called "sugahs", and are intended to pierce the foot or the leg near the foot of an enemy who may try to surprise the settlement in the night.

In the Presence of the Chief

On our party arriving at Nanong, we were met by the whole population, about two thousand in all, they having come in from the outlying rancherias. I was immediately taken to the house of the sick chief, where I found him lying on the floor suffering untold agonies, but uttering not a sound, as is the custom of these people. I was glad to see him in any condition whatever, for I had feared that he had died and they believed the medicine I had sent had killed him, and now, to even the thing off, were going to dispatch me. So finding him alive was a great relief to me; still, my happiness was of short duration, for I was immediately informed by the great Chief that he was ready for the fateful operation.

He calmly said that he had suffered as long as he was going to and now wanted the "evil spirit" cut out, or gotten out some way, he did not care how; and that, if he died during the process of getting rid of the thing, just to bury him, and in that event they, of course, would cut off my own devoted head and kindly send my body back to my headquarters, to be buried beneath the floor of my domicile. However, as I had said that I could cure him, of course the latter disagreeable procedure would not become necessary.

You can imagine how I cursed those words I had thoughtlessly spoken a month before, telling him I could cure him. And right then and there I took an oath never again to give a positive prognosis. When I had told him that I could cure him I was using an interpreter who himself knew but a few words of the other language, and so I had said I could "cure" the chief, that being the shortest and easiest way for the interpreter to put it—and here I was, as a consequence, given the cheerful option of either curing him or paying the penalty of failure with my head. Not a nice thing to contemplate when I came to think of the situation; for here I was, up in the heart of the Caudillara Mountains, far from Christian habitation, surrounded by a wild, savage horde, with only a few instruments to work with, and no assistance except one of my corpsmen. Happily, as afterward turned out, this subordinate man was a wonder.

My head was in a swirl as in my mind's eye I foresaw what was ahead: the septic

infection, with all its attendant horrors—the chills, the fever, the bloating, and all the rest of it. I saw the swollen corpse, with staring eyes, lying on the floor of the filthy hut; the mob of howling savages; and then there floated athwart this joyous mental picture my headless body, elbows and knees tied together, dangling from a bamboo pole, with those black devils dancing round and round.

Well, I was in for it and so did not dwell long upon these gloomy reflections; for I had something to do—in fact, I had about the biggest thing to do that ever I had tackled, and withal the poorest show for doing it. But here I was; nothing to do but to get busy. I just simply had to have time to get things ready. So I told the sick chief that under no condition would I operate in the full of the moon, but as soon as that influential luminary began to wane, I would cheerfully cut him open and take out the stone. Of course he did not believe there was a stone inside of him, saying he never had indulged in such indigestible concretions; and I could not explain to him how it came to be there, since my corpsman could not speak the language well enough for that; indeed, most probably could not have made it clear even had he been able to talk fluently. We tried hard to enlighten him, but the best we could get out of him was that he wanted to be cured, and that he was ready so far as his own mind was concerned. Unfortunately, however, his Highness' body was far from being in readiness. Leaving out the fact that his exterior was covered with the life-long accumulation of dirt, he was in a very poor condition, physically, to stand even a minor operation, for he was very much emaciated and had had chills only a short time previously. Certainly, everything was against me, and my cranium seemed destined to adorn, in the near future, a Kalinga bamboo pole.

An Operation Under Difficulties

First I had the house thoroughly cleaned; everything was taken out and scalding water poured over the floors, after which not a one was allowed to enter it. Next I rigged up an operating table. Then I turned my attention to the sick man's body. I had some soap, and I put my corpsman to work with it in conjunction with lots of hot water. We scrubbed that fellow's body by turns, and by the hour, and in this way, and by the gracious assistance of pale-faced Luna, three days were killed. On the fourth day our patient had a chill followed by a high fever, exactly what I had been fearing. I began dosing him with calomel and quinine, meantime endeavoring to persuade him to postpone the operation. But he would not listen; he was determined not to let me get out of it, and that I should perform that operation. He even hinted that he did not exactly believe all I was telling him and that I might be trying to work some sinister game on him. Still, he helped me in every way he could and was willing to do anything that seemed reasonable to him.

Eventually I managed to persuade him to wait three days more, promising that if the fever did not return in that time I should then cut the bad spirit out of him. There was nothing else to do, and so I had to take my chances, since by this time the savages were getting restless and a longer delay would have been just as disastrous as the death of the chief from the operation, for everywhere, as I moved about, I could see sullen looks and hear the low mutterings of the warrior men.

Upon the morning of the third day, there being no more fever, I took my knife and my life in my hand and started in. I chloroformed the patient, and as soon as he was fully under influence, I turned that part of the work over to my corpsman with the instruction not to let the man come out of the sleep until I had finished. As I had no one to help me in the operation, I had firmly strapped the man to the table, seeing that it would not do to have him struggle should he come to prematurely. [Dandy chance for H-M-C.—Ed.]

Ten of the chief's head men stood around me in a half-circle, to see the operation and to guard against any tricks on my part. All of them were armed and their nerves strung to the highest pitch, liable to snap at any moment from the strain. This was no pleasant situation, for I could almost

feel the cold steel on the back of my neck; but as there was nothing to do but to get to work, I started in by making the first incision for a lateral cystotomy.

At the first spurt of blood all thoughts of the threatening savages round about passed away, and I was again the surgeon, all my mind on the work and perfectly cool. This operation took up nearly three-fourths of an hour, for I had encountered great difficulty in removing the calculus. As it proved much larger than I had surmised, the incision had to be enlarged, and as there is a regular network of arteries at this point, the hemorrhage had been great and blood was smeared all about. After checking the bleeding, I looked up to call the attention of the savages standing around me to the stone. And what do you suppose I saw on looking up?

I did not see a soul except my faithful corpsman and the sleeping patient—not one death-defying headhunter in the room! The sight of the blood together with the odor of the chloroform had worked on those savages exactly as I have seen it do so often in the case of white men. Still, as for the former, it was a novel experience. I had to laugh, despite the fact that I was a long way from being out of the woods, as the chief was still bleeding pretty freely. However, by packing the wound with gauze wound around a catheter, I succeeded in stopping the flow.

Having fastened the catheter in with a safety pin, I removed the patient from the table and placed him on a pallet previously arranged on the floor. I then went outside to get a breath of fresh air and show the stone to the savages standing grouped around the house. I could not persuade a one to touch the stone, which was of an oblong, oval shape; they did not want anything to do with it, and could not see how in the world it ever got to be inside of the chief; said he must have swallowed it, or that an "anito" (spirit) had smuggled it into him.

My corpsman outdid himself in watching and nursing that chief. He sat by his side night and day. I could hardly get him to let me relieve him at all, but by my taking turns at nursing, the good fellow got a little sleep now and then by just falling over on the floor. He would not leave the patient and go anywhere else to sleep. But what little snatches of sleep he did get did not do him much good, I fear, for he would roll about and groan as though all the devils from hell were tearing him to pieces. I reckon he was having bad dreams —I know I did.

The Operation Proves Successful

The chief had a high fever the night of the operation, as I had feared, for he had lost considerable blood and consequently was weakened and his power of resistance lessened. The fever continued off and on for the next few days, but by close attention we finally got him on the road to recovery, though not without a great deal of worry and work, for the bleeding persisted, when, under ordinary circumstances, it should have stopped. His blood being so depleted, all ordinary measures failed and I was finally forced to resort to cauterizing with silver nitrate. After that I had no more trouble.

(*To be concluded in March*)

Induction Currents From a Therapeutic Standpoint

A Comparative Study

By C. S. NEISWANGER, M. D., Chicago, Illinois

AN induction current is one generated in a conductor by the influx and egress of magnetic lines of force. Of necessity, they are alternating in character —at one instant being in one direction, the next instant in the opposite direction; but by commutation they can be changed to flow in one direction.

Four different kinds of induction currents are in use for therapeutic purposes; namely, the faradic, the alternating commercial, the static induced, and the sinusoidal, and the chief function of these is largely mechanical, the object being to produce muscular contractions and thereby stimulate muscular cell growth.

The Faradic Current

Ever since Faraday constructed his first induction-coil, that current has been used almost exclusively for muscular work—and, I regret to say, for nearly every other kind of therapeutic work imaginable, even for the treatment of cancer. Almost every family owns a small faradic machine, and the armamentarium of the physician has been considered incomplete without one; the mechanism being either mounted upon a wall-plate or incased in a highly polished receptacle.

The faradic current produces profound sensory effects, due to its uneven character at "make" and "break"; the "break" being about twelve times stronger than the "make." It is represented above the neutral line in Figure 1.

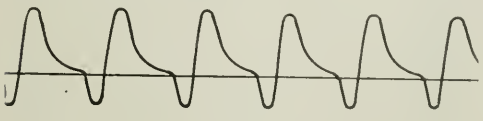


Fig. 1

The faradic current, therefore, produces a contraction of the muscles, accompanied by a maximum of pain.

Every *turn* of wire in a faradic coil increases the pressure, or *voltage*, of the output; but each added turn of wire also increases the resistance in the circuit.

Resistance decreases the amperage, i. e., rate of flow, without correspondingly affecting the voltage, i. e., pressure. In an ordinary faradic coil, therefore, the amperage has been so decreased by the number of turns of wire as to be almost inappreciable.

Some writers claim polar effects for a secondary faradic current. This could be so because of the strength of the current at "break", which is uni-directional, only, unfortunately, it does not carry sufficient current to produce polar effects.

The alternating commercial lighting current, and the current from ordinary small generators as well, may be diagrammatically represented as in Figure 2, which shows a 60-cycle current. (See page 170.)

Starting at zero, the voltage (pressure) runs up rapidly, returning to zero again as suddenly, and describing the same angle at opposite polarity below the zero line.

Such a current, while producing muscular contractions and less pain than the faradic, besides having some influence on trophic centers, does not properly fill the office of induced currents as used for therapeutic purposes. The rapid rise and fall of the voltage produces such sensory effects as to preclude the possibility of obtaining sufficient current flow—that is, within the limit of tolerance of the patient—to do the work required.

In this connection, we must not lose sight of the fact that the current flow, or amperage, has as much to do with the therapeutic qualities of an alternating current as it has with direct currents; the only difference being that the amperage of direct currents gives our polar effects *at the pole*, while the rate of flow of induced currents

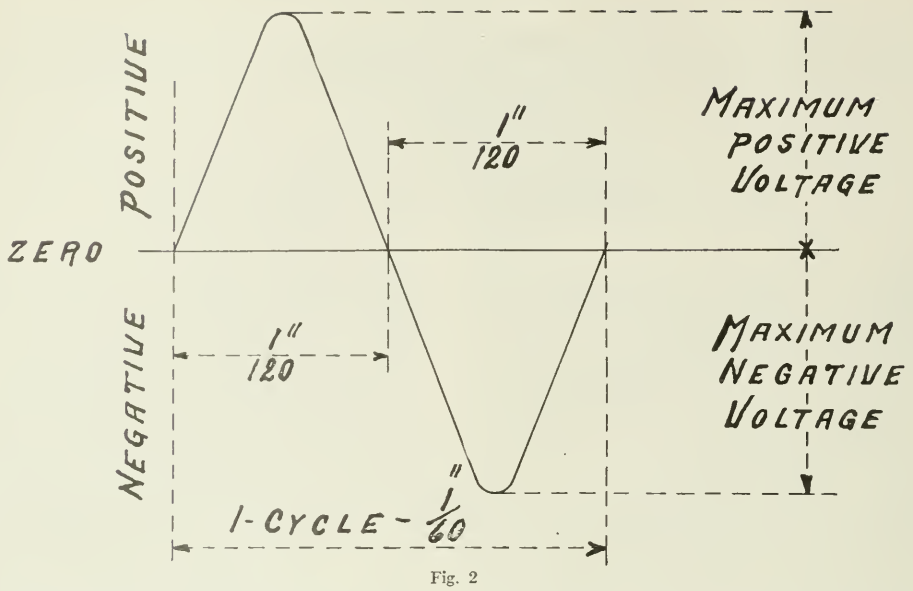


Fig. 2

produces important metabolic and trophic changes in the *interpolar* space.

The efficacy of induced currents, from a therapeutic standpoint, lies, not so much in their power to produce muscular contractions (all induced currents will contract muscles) but more in the *character* of the contractions produced and the accompanying effects upon the tissues traversed.

The static induced current is produced by the disruptive discharge from a condenser and properly belongs to "high-frequency high-potential currents." It may be represented by the diagram shown (Figure 3).

Starting at the zero line, the voltage rises rapidly to "A," where the resistance of the air gap between the prime conductors is overcome and a disruptive discharge takes place, sending the voltage suddenly to zero; whereupon it rises on the negative side of "B," alternating back and forth and gradually decreasing until its equilibrium is restored at "C." The voltage then rises again at "D," where another disruptive discharge takes place.

Between the two discharges "A" and "D" there may be millions of alternations and the voltage may be high or comparatively low, according to the length of the spark-gap.

While this current produces muscular contraction, accompanied by less pain than the faradic or alternating commercial current, there are several serious objections to its use. Thus, it is almost impossible to regulate the speed of the machine so as to give the required number of alternations, while it is equally as difficult to control the strength of the current—each one-fourth inch separation of the prime conductors making an increase of about 10,000 volts.

The sinusoidal current (so named because its tracing above and below a neutral line resembles the sine of a circle) is produced by a generator much the same as are our commercial lighting currents, except that the field-magnets of the generator are so arranged that the output is materially different.

Many physicians believe that when they have access to the ordinary alternating lighting circuit or install a small alternating generator of any kind, they have a true sinusoidal current or one that will equal it for therapeutic uses. Such, however, is not the fact. The instrument for producing a real sinusiodal current must be built for that purpose. A true sine current is represented in Figure 4.

Starting at zero-potential, the voltage *gradually* rises along the line "AB" until it reaches its maximum at "B," descending *gradually* along the line "BC" until it reaches zero-potential at "C"; without pause the voltage again rises along the line CD—except that now it is of opposite,

i. e. negative, polarity—until it reaches its maximum negative potential at "D," from which point it gradually descends again to zero, thus completing one cycle.

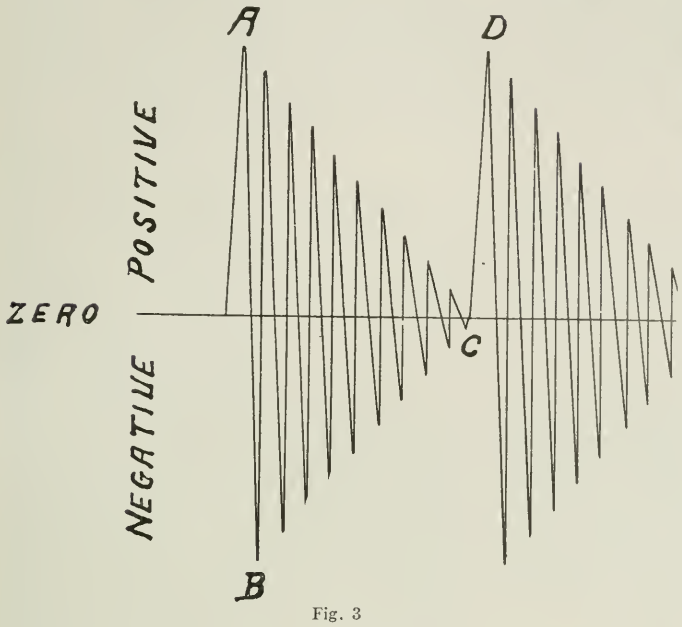


Fig. 3

It becomes evident that a single modality of this current, be it ever so perfect in character, will not answer all purposes.

True massage consists in causing the muscle to contract and allowing it to come back to normal before it receives the next impulse to contract. If the alternations are too rapid, the muscle remains in a state of tetanic spasm, which simply tires it out. Some muscles respond to a rapid rate, as for instance, the ocular; some of the long muscles require a much slower rate; while still others require a very slow worm-like contraction, similar to the peristaltic movement of the intestines.

In a sinusoidal apparatus, to meet all these conditions, there should be some means of controlling the length of the sine and allowing any variation of voltage without affecting the integrity of the current. These points should be especially kept in mind when purchasing a sinusoidal outfit.

A true sinusoidal current yields the ideal massage, because it causes muscular contraction without pain. With it, we can produce contractions strong enough to simulate the worst case of paralysis agitans without causing any inconvenience whatever to the patient.

It is a well-known fact that, with few exceptions, any application of negative galvanism should be followed by massage, in order to stimulate the absorbents to take charge of the products of decomposition set free by electrical action at the negative pole.

Here we are able to save the time of two applications by using another very valuable modality of the sinusoidal current, which I shall term the "sinusoidal galvanic," but which has been heretofore called the "surging galvanic." Being in one direction, it has the polar effects of a constant current,

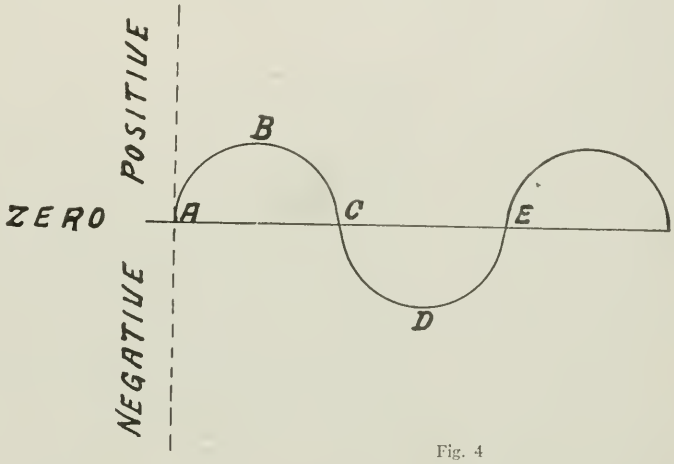


Fig. 4

besides the power to contract muscles as with alternating currents. See Figure 5.

By utilizing the *polar* effects of negative galvanism and the most perfect massage at the same time, we are enabled to treat

successfully such cases as optic atrophy, pelvic adhesions, and that greatest cause of dysmenorrhea and sterility, the infantile uterus. With this current I have developed a number of wombs from about one inch up to 2 1-2 inches in from twenty to thirty sittings. This also is the current *par excellence* in anterior poliomyelitis after

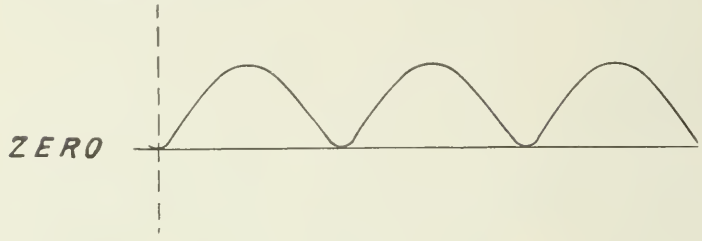


Fig. 5

the muscles have partly or wholly lost their irritability to induction-currents. In my last case of infantile paralysis, a girl of twenty, who could not walk or even stand without support and whose muscles gave *no response to induced currents*, recovered perfectly in three months under "sinusoidal galvanism" and has since married.

There are just as many therapeutic indications for the use of induced currents as for any other kind, and, I regret to state, there are just as many misapplications of it.

One of the principal errors in applying induced currents is in using too rapid an interruption, and for too long at a sitting. If your faradic coil has only the ordinary hammer-interrupted, it will be neessary to cut the current up into periods. This can be done with an automatic interrupter, or by "making" and "breaking" the contact at one of the electrodes.

It is well to remember, also, when using induced currents, that the impulse for the contraction of the muscle is *not sent out from the brain*, but from the battery, consequently the brain is never cognizant of the work being done. It is an easy matter, therefore, to *fatigue* the muscle, and thereby fail to accomplish the prime object of the application. Let your seances be short at first, and you may gradually increase the time as the parts become accustomed to the work.

LET us not dare to add to the burden of another the pain of our judgment. If we would guard our lips from expressing, we must control our minds; we must stop this continual sitting in judgment on the acts of others, even in private. By our daily exercise in self-control let us learn to turn off the process of judging—as we would turn off the gas.

—William George Jordan.

A Specific Treatment for Tuberculosis

By W. C. GOODWIN, M. D., Philadelphia, Pa.

EDITORIAL NOTE.—In this paper Dr. Goodwin continues his reports of experience in the treatment of tuberculosis, in which the sulphocarbolates and calcium sulphide play a prominent part. His hypothesis regarding the significance of the febrile reaction and the rational method of relieving it, is a unique one. You will be intensely interested in his work.

THE initial lodgment of the tubercle bacillus occurs most frequently at the apex of the right lung. From here, in the course of the development of the disease, it is carried up to the mouth, to be either expectorated or swallowed. The tuberculous enteric ulcer is a direct sequence of this latter occurrence, being formed most frequently in the ileum. The ulcer develops best under alternating conditions of constipation and diarrhea. These conditions, together with tenderness, may be present; but the tuberculous-fever curve (subnormal morning, hypernormal evening temperature) is a pathognomonic sign of its presence; the cause being the absorption of toxins from the intestinal contents. This is not a theory, but fact. We shall prove it.

Calcium sulphide and sodium sulphocarbolate should always be prescribed together. The presence of the sulphocarbolate keeps the mucous membrane of the stomach normal and so aids greatly in the absorption of the sulphide.

The Role of Calcium Sulphide

The dosage of the calcium sulphide is 1-2 grain (three 1-6-grain granules) hourly during the day, and every two or three hours in the night. It should be taken without water. The sodium sulphocarbolate should always follow this, being crushed between the incisor teeth and thoroughly mixed with the saliva (for two minutes) before swallowing. Children of ten years bear this dosage quite as well as adults.

Rest, recreation, and a moderate diet (4 eggs and 2 quarts of milk per day) are conditions under which it is most effective. Conversely, overwork, worry, and innutritious food largely nullify its action. When patients object to eggs and milk, an ordinary nourishing diet may be satisfactorily substituted.

The calcium sulphide is absorbed directly into the blood and lymphatic circulations. Therefore, as a matter of course, the effect of this drug is the most noticeable where there is the fullest and freest circulation—a fact to be remembered in cases of white swelling, and other similar conditions. When taken for a period of several months pleuritic adhesions are gradually broken up. The writer has seen patients with whom only abdominal breathing was possible, finally regain normal thoracic respiration.

The Role of the Sulphocarbolates

Sodium sulphocarbolate is none the less a marvelous drug because its field is such a distinctly limited one. These limits must be thoroughly understood. Its strength is gradually exhausted in the presence of the gastrointestinal contents; and in order that its action may be sustained, the dosage must be increased. There is a wide variation among patients in their capacity to bear this increased dosage. [As I understand it, Dr. Goodwin means this: if the accumulation is large, more of the salt will be required to arrest germ growth. The "moral" naturally is, to attend *first* to the cleaning out of the intestinal tract by mercury, laxatives—salines especially—and enemas. The bacteria themselves never become tolerant of the phenolsulphonates.—Ed.]

No effect is noticeable on the fever until the active drug reaches the location of the ulcer, when the temperature drops almost immediately to normal. It is doubtful whether the administration by mouth can accomplish more than to sterilize the small intestine and the cecum.

In administering sodium sulphocarbolate as before stated, it must be crushed and thoroughly dissolved in the saliva two minutes before swallowing. This is necessary to avoid vomiting, which otherwise is sure to follow. The associated gingival condition (pyorrhea) is healed by this procedure, and the formation of tartar overcome, more slowly, it is true, yet none the less surely.

When conditions are acute, an occasional rinsing of the mouth with slightly alkaline hydrogen-peroxide solution is of additional value. The gingivæ, once thoroughly healed, require very little further attention. These remarks may interest some of our dental friends.

Mode of Giving Sodium Sulphocarbolate for Healing the Ulcer

The healing of the enteric ulcer is attended by many difficulties. The usual procedure is, to begin by giving 5 grains of sodium sulphocarbolate hourly; next, to regulate the bowel movements.

There must be neither constipation nor diarrhea, for both, as stated, are equally irritating. For relieving constipation, the compound licorice powder is satisfactory; the patient being instructed to take a specified quantity on retiring, which may serve as a basis from which to increase or diminish the amount as circumstances may require. There should be at least one stool daily.

These arrangements completed, the physician now is prepared to increase the dosage of the sulphocarbolate. From an initial dose of 5 grains hourly, the writer usually proceeds to order 5 grains before, and the same dose after, each meal; then 10 grains, and 15 grains, the aim being to allow for an increase of 15 or 20 grains for each succeeding day. This in addition to the hourly dose which also is increased as needed.

As before stated, where there is a single disturbing ulcer the fever under this treatment, which also is increased as needed, drops precipitately. It is to be hoped that the reader's first case may be one where the ulcer is situated well up in the ileum. Should this not be, and dosage required has to be pushed to the point of intestinal irritation (the therapeutic limit), then the stool must be closely watched.

Some Complicating Phenomena

To prevent diarrhea, under the conditions named, it is necessary to have recourse to zinc sulphocarbolate. I give tablets containing, each, 4 1-2 grains of sodium sulphocarbolate and 1-2 grain of the zinc sulphocarbolate, these to be substituted for the plain 5-grain sodium sulphocarbolate tablets. Carefully note the result. The simple zinc-salt tablet can not, of course, be crushed in the mouth, because of its astringency. But one-grain tablets may be swallowed at mealtime, and this is an effective way of administering pure zinc sulphocarbolate. The average stomach can not bear more than 10 grains of the zinc salt three times daily; and then it must be taken with the meal.

If the patient has fever, it is best to confine him to the room, as all activity increases peristalsis and prevents healing. The fever once reduced, the cause of its reappearance must be accounted for. The principal causes here are slight constipation, diarrhea, worry; but there are other factors; these the medical attendant must clearly determine and seek to remove.

The urine rapidly clears under efficient sulphocarbolate medication; this in addition (as has been stated elsewhere) to the great improvement along the entire digestive tract.

The treatment does not add flesh beyond a regular normal increase commensurate with returning health. During heavy dosage, in fact, there is a loss of weight, which, however, is speedily regained on a partial withdrawal of the drug.

As may be expected on reflection, it occasionally happens that the irritation due to the sodium sulphocarbolate may occur before the dosage is reached which is necessary to disinfect sufficiently the intestine about the location of the ulcer. These instances, fortunately, are of infrequent occurrence.

The Enema in Ulcer of the Colon

Colonic ulcers can be effectively reached by an enema composed of cottonseed oil,

8 ounces, and zinc sulphocarbolate, 2 drams. The hips of the patient should be elevated and a high rectal tube employed. A small quantity of water added just at the last aids both the effectiveness of the enema and serves to distribute it farther along the colon. However, the enema is to be used only where there are ulcers at the hepatic or splenic flexures or in the rectum, and must be employed with great caution. An increased amount of mucus in the stool is an indication for care.

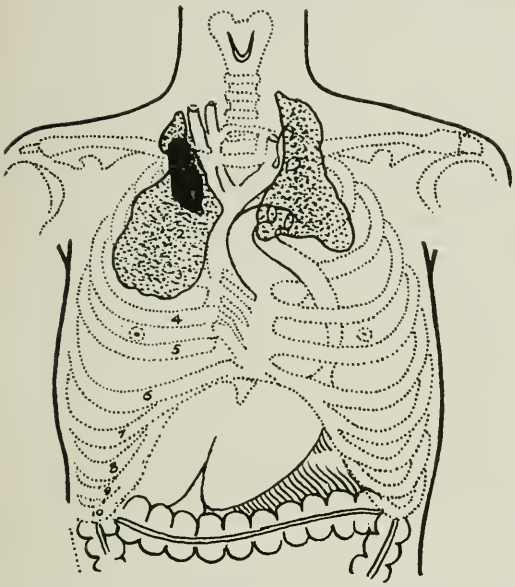


Fig. 1. Showing area of whispered pectoriloquy and friction rubs early in case. Dark area shows tympany

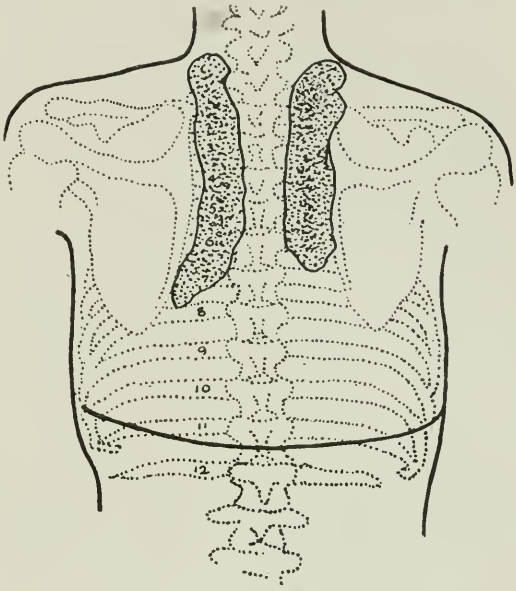


Fig. 2. Same areas as revealed from the back

The case considered below is selected because of its explanatory character and not on account of any striking or unusual features. Indeed, the dosage is quite under the average amount needed.

Clinical Illustration

Case M. W., May 6, 1911. School-girl, age 16 years. Complains of cough, expectoration, fever, night sweats, headache, lack of appetite, tired feeling, loss of weight, paleness, indigestion, constipation. Family history: Mother died at the age of 40 years; cause, intussusception of the bowel. Father living and well at the age of 40 years. Patient has three brothers and four sisters living, all showing tuberculosis in one form or another, she being the eldest.

Clinical examination: Pulse 112, respiration 38, temperature 38.1° C. (100.6° F.) Weight 94 1-4 pounds. Inspiration short; expiration prolonged, with many friction rubs over chest above the fourth rib on the right side. Many râles over both apices. Breathing almost entirely abdominal. Chest flat, all bony prominences exaggerated.

At the date of consultation the patient was still attending school, although she had been under the care of the regular family physician for several weeks. She is very thoughtful and carries responsibilities far beyond her years. She was not confined to the room at first. Stool regularly at 7 a. m. The thermometer, for all these records, was retained in the mouth for 15 minutes. The results were as follows:

May	7 a. m.	dosage	12:30 p. m.	5:30 p. m.
8	98 3-5	100 grs.	100	99
9	98	100 grs.	98 1-5	100
10	97	100 "	100	98 2-5
11	98	100 "	100	99 3-5
12	97 2-5	145 "	98 1-5	98 1-5
13	97 4-5	145 "	98	98 2-5
14	97 4-5	145 "	98 2-5	98 1-5
15	97 3-5	145 "	98 1-5	98 2-5
16	98	145 "	100 (confined to room).	100
17	99	225 "	100 3-5 (stool 4 p. m.)	100
18	98	225 "	98 4-5	99 2-5
19	98	245 "	98 4-5	99 2-5
20	97 4-5	245 "	99 2-5	100 2-5

May	7 A. M.	dosage	12:30 P. M.	5:30 P. M.
21	97 4-5	275 grs.	99 3-5	100
22	98	295 "	99	98 4-5
23	97 4-5	295 "	98	98 4-5
24	97 3-5	295 "	98 3-5	98 2-5

With a few trifling exceptions, the patient's temperature has remained normal since the terminal record.

Urine examination: June 2, 1911. These were the findings: Light-straw color; normal odor; cloudy, cleared by filtering; acid reaction; specific gravity 1014; light flocculent mucous deposit, showing 25 percent on sedimentation. Not present: albumin, glucose, indican, acetone, skatol.

Microscopical examination: A few squamous epithelia, granular epithelium, and leukocytes.

The patient spent the summer at a New Jersey resort. Reports were made weekly. On September 25, 1911, our examination showed pulse 84, respiration 20, temperature 37.1° C. (98.8° F.), weight 105 1-2 pounds.

Examination December 1, 1911, gave these data:

Thoracic respiration somewhat below normal, but great improvement is shown. Pulse 84, respiration 20, temperature 37° C. (98.4° F.), weight 106 1-2 pounds.

On November 29, 1911, the patient's condition was determined, and the following data were arrived at:

Blood examination: Hemoglobin, 95 percent (Tallquist), specific gravity, 1057, white blood corpuscles, 8,568; red blood-corpuscles, 4,820,000. Microscopical examination: Normal color index 0.98. Urine examination: Light-straw color; cloudy, cleared by filtering mucus deposit; on sedimenting, 15 percent; acid reaction; specific gravity 1020. Sputum examination: negative. Odor normal. Chemical examination: Albumin, glucose, indican, acetone, skatol, absent. Microscopical examination: A few granular epithelium, few squamous epithelia, a few leukocytes, round cells, and bacteria.

Now, doctor, follow the advice laid down in this paper and you can cure your tuberculous patients. Remember, however, that very few firms make sulphocarbolate salts that will not irritate the mouth when you come to push the dosage as it must be pushed.

Remember, further, that the average calcium sulphide on the market, is a joke, even when it bears the name of firms with a national reputation. On this point you can not be too particular.

When you have had some experience with this method of treating tuberculosis I shall greatly appreciate a letter from you.

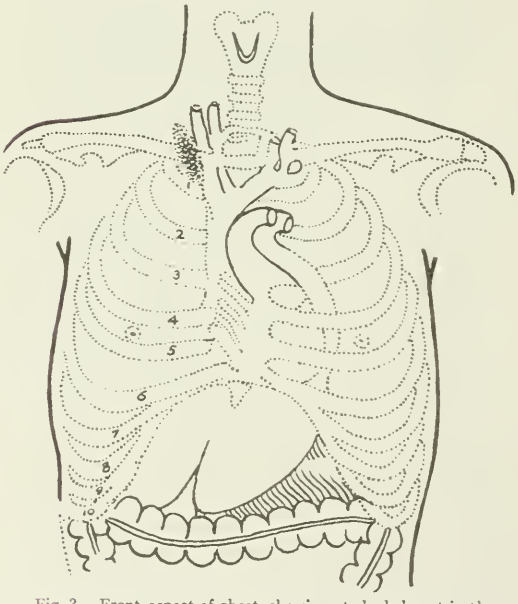


Fig. 3. Front aspect of chest, showing at shaded spot in the apex the area of whispered pectoriloquy after treatment

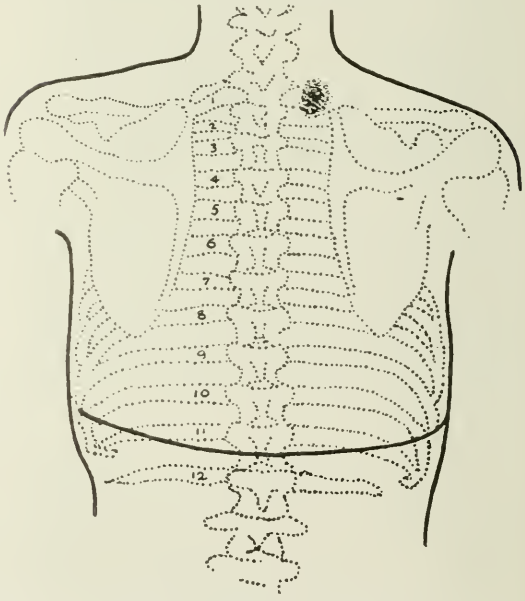


Fig. 4. Same area shown from the back. Shaded spot shows reduction of affection in the lung

Epithelioma, Lupus, and Rodent Ulcer

Their Escharotic Treatment With Zinc Chloride

By J. E. TIBBENS, M. D., Beech Creek, Pennsylvania

EDITORIAL NOTE.—Here is a topic in which we are all interested. The "faculty" of CLINICAL MEDICINE *hopes that it may set you to thinking—and to writing for others of your own experiences in this field. Let's thrash this subject out.*

DURING the first ten years of my practice, when a patient came to me afflicted with cancer, I advised the knife, for I was taught at college that the removal with the knife was the only treatment. However, some of my patients did not take my advice, but went away to be treated by "the cancer doctor;" and, really, some came back cured. This caused me to exercise my gray matter, and my very first case treated with drugs was a success. It was an epithelioma of the face, located over the malar bone, and was of five-years' growth. I removed it with the anhydrous sulphate of zinc. That was twenty-five years ago, and this person is in good health today.

Not long after, I began to use the chloride of zinc, which I found to be the most powerful escharotic in the materia medica; causing death to abnormal and denuded tissue the moment it comes in contact with it. I have removed the entire female breast, affected with cancer (scirrhus), by four applications.

The zinc chloride is easily controlled in its operation and is perfectly safe. I have not had a single case of erysipelas or a case where any bad symptoms were produced by it. After the eschar was removed by poulticing, the sore healed kindly in every instance.

My experience in the treatment of cancer leads me to assume that cancers are local when they first originate, and if the zinc salt is used within six months or a year from their origin, I believe it to be a specific in external cancer; although I have succeeded in curing many cases of much longer duration.

People Should Know That Cancer Is Curable Without the Knife

If my conclusions are right, then the entire destruction of the cancerous mass, which the zinc treatment will certainly effect, will produce a perfect and permanent cure.

Cancer comes on very insidiously. Sometimes the person suffers very little inconvenience for six months or a year, or even longer, and many times they do not apply for treatment until the time for a permanent cure has gone by. Still, even in these cases the victim's life may be prolonged for years by the removal of the growth, and afterward as often as it reappears at the site of the cicatrix.

Thirty-four thousand persons died of cancer last year in the United States. If the people were educated through the lay press that, when a suspicious sore exists in anyone, which refuses to heal by ordinary remedies within a reasonable time, they should apply to a physician for treatment, and the latter then would use the zinc treatment, I am confident a much larger percentage of external cancers would be cured than today patients are cured of typhoid fever or pneumonia.

If women were taught, through the lay press, that when they discover a "lump" in anyone's breast, no matter how small, they should, without delay, go to a surgeon and have the entire breast removed, and they would do as advised, I am certain that a cure would result in every instance. A "lump" in the breast of a woman is in nearly every case a certain warning symptom of cancer. All the women who came under my observation, during the thirty-six years I practised medicine, who took my advice and had an early operation were cured; while all those who did not take my advice as to an early operation died of cancer, although in a number life was prolonged for some time by first removing the entire breast, including the glands in the axilla and those in the supraclavicular and infraclavicular region, and

then removing the recurrent growth with the zinc treatment as often as it returned in the cicatrix.

Any physician who makes treatment of cancer a specialty will be astounded at the number of women afflicted with cancer of the breast who present themselves. I believe I am safe in saying that it will reach full seven percent.

If I am correct in saying that cancer is local for some time after its occurrence and an early operation will cure, then two thousand women afflicted with cancer of the breast can be saved from death every year in this country alone.

Cancer will not recur after an early operation if absolutely all of the neoplasm is removed; but if only one single cell is left, there will be a recurrence. It seems that merely partial removal of a cancerous growth has the effect of stimulating the remaining cells to such rapid proliferation that is simply marvelous. If a physician has not the courage to go to the very bottom and remove all the malignant neoplasm, he would better not operate, for otherwise he will only hurry the patient to the grave.

Removal No Insurance Against Future Growths

If a person has a cancer and it is successfully removed, he may get another cancer. If a man contracts pneumonia, he will call a physician, who cures him; but the physician can not assure the patient that he will not have another attack. Should the person have another attack of pneumonia, he again sends for the doctor, who will cure him a second time. Just so it is with cancer.

Twenty years ago a woman came to my office and said: "I have a vicious-looking sore on my face. It has been there for over two years, and I want you to examine it. One doctor said it was a cancer, and wanted to cut it out. Another would not say what it was and gave some medicine to apply which only made it worse." I found the "vicious-looking sore" to be a well-developed epithelioma, located above the right ala of the nose and extending on to cheek; it was one inch in diameter, and was discharging pus. I told the patient that I could cure her. I was certain that I could burn the epithelioma to death with my zinc chloride, and I was certain that then I could heal the burn. I destroyed the growth by three applications.

The patient, when healed, remained free from cancer for eighteen years, and then a new growth formed on the same cheek, near the ear. This my son, P. McDowell Tibbins, removed. Six months after, another appeared between this cicatrix and the older one, which my son also removed. The old cicatrix was not disturbed, showing conclusively that the first operation was a thorough one. Since the last operation the woman has been in good health and is now enjoying a graceful old age as an octogenarian.

I could cite many cases where I thus operated within the last ten or fifteen years, the subjects of which have been free from cancer and are now in good health.

Exact Manner of Employing the Escharotic

I proceed as follows: I first surround the cancer with adhesive plaster, leaving a space of one-half or three-fourths of an inch of sound tissue between the growth and the plaster, so as to be certain to go beyond the diseased tissue. The adhesive plaster will limit perfectly the caustic action of the zinc. I then apply a mixture of equal parts of nitrate of mercury ointment and finely powdered chlorate of potassium, and leave this on about six hours. Then I remove this ointment and apply the zinc chloride, rubbed up with flour, without water, until the mass is thick enough to hold the zinc in position, and leave it on for about eight or ten hours. After I remove this dressing, I carefully cut away all the necrosed tissue with the knife. This latter operation is, of course, painless. The dead tissue should be removed down to the "red;" if by accident the operator goes too deep and there should be a free hemorrhage, he need only apply some of the zinc again, when it will stop immediately. Then I again apply the zinc, and again remove the necrosed tissue with the knife as before; and so I continue until I get down as deep as I want to go.

Now I apply poultices until the last eschar comes away, which will be in from

four to eight days, depending on how large a mass is to be removed. The parts are carefully examined, and if I still find any signs of abnormal tissue, I make another zinc application, and again poultice as before. I even make the third application, should this be necessary. It is here where many will fail in effecting a radical, permanent cure, because of not destroying every bit of the diseased tissue. It is best to mop the wound well with a solution of mercury bichloride before applying fresh poultices.

The neoplasm removed, I then dress the sore with a saturated solution of chlorate of potassium during the entire healing process, keeping the parts moist with it. This will cause the sore to heal in a very short time, and the operator will be surprised at the small cicatrix left. It is well to bear in mind that, after we have destroyed the cancer, there no longer is a "cancer" to treat, but simply an eschar.

Enough cocaine should be used with the zinc chloride to make the caustic action painless. Especially should the cocaine be used freely with the zinc when an application is necessary after the eschar is removed by poulticing.

If, after applying the nitrate of mercury ointment and the chlorate of potassium (which will soften the cancerous tissue and the skin, so that the zinc will penetrate quickly), the skin should resist the action of the zinc, I moisten the resisting cuticle with nitric acid, which will destroy it in a short time. Zinc chloride does not readily destroy the epidermis in its normal condition.

Internally, I prescribe from 3 to 5 drops of Fowler's solution of arsenic after meals, and a teaspoonful of the socalled trifolium compound an hour after meals, continued for several months after the cancer is removed.

Some physicians are treating cancer successfully with the electric needle and the zinc salt; but this is not necessary, for the zinc chloride will do the caustic work without the aid of the needle.

We have some dabsters in the profession, and, of course, they will fail to cure external cancer by this method; but some who are not dabsters will fail also, for the reason that they have not the courage to go deep enough to destroy the neoplasm to the last cell.

I do not believe it good practice for a physician to advise all patients suffering from external cancer to go under the knife, for there is no class of patients that dread the knife more than those suffering from cancer. Why it is so I cannot tell, but it is a fact. Full ninety percent of cancer-patients will not submit to treatment by the knife, and these, in time, after the growth has advanced and become very painful, will find their way into the hands of charlatans, who not only fleece them of their earnings, but punish them with irritating and painful applications until merciful death at last relieves them.

Any physician who will use the zinc treatment as here suggested will have a great and pleasant surprise, to see how thoroughly and quickly it will destroy abnormal tissue, either malignant or benign, for which it has a wonderful affinity.

It is a cinch to cure lupus and rodent ulcers with the zinc-chloride escharotic treatment.

I shall be pleased if I have made the zinc treatment for external cancer so emphatic that it will induce other physicians to give it a trial. Some of the old physicians I know will not do so, for about fifty percent of them are like "Ephram joined to his idols, they must be let alone;" and the surgeons will continue to use the knife, as a matter of course. If only I and the editor can induce others to give the zinc treatment a fair trial, it will make any physician happy to cure these unfortunate victims of a terrible malady. Would I could persuade every doctor in practice to adopt this treatment.

The Physician and His Place in the Community

*A Doctorate Address**

By SETH SCOTT BISHOP, M. D., LL. D., Chicago, Illinois

Professor of Diseases of the Nose, Throat and Ear, Medical Department of Loyola University

IN receiving the degree of Doctor of Medicine and the congratulations of your friends, the honor and privileges conferred with the title are not the only things to be considered. You should be reminded that, in accepting the privileges of physicians, you assume at the same time responsibilities of the gravest nature. Your relations to the members of the community who will entrust themselves to your care are changed. Such relations become as sacred and inviolable as those which exist between priest and parishioner, between lawyer and client. Your duties will involve an intimate knowledge of their affairs, their habits and their characters, such as no other professional relation conveys.

Public sentiment endorses this high position, which is maintained by every honorable physician. In the safety vaults of your memories will be treasured those confidences and secrets that are poured, confession-like, into every doctor's willing or unwilling ears. In your power may rest the integrity and the happiness of families, the destiny of citizens, and the sanitary welfare and safety of the community.

Let your influence protect the home and the family. Let your force of character encourage and uplift the fallen victims of disease and despair. Let your superior knowledge, skill, and judgment defend the people against the devastating contagion of epidemics.

Triumphs of Modern Medicine

Modern medicine has increased your power for good many fold over that of your ancestors. It is truly a great privilege to practise medicine in the opening years of the twentieth century. We possess a mastery of our art not dreamed of by our plodding forefathers. The refinements of diagnosis made possible by the microscope and the improved processes of the laboratories of chemistry and bacteriology; the prevention of diseases and their spread by vaccination and the antitoxins; the concentration of drugs and the extraction of their alkaloidal principles, in addition to the palatable and elegant products of advanced pharmacy; the various adaptations of electricity to the service of medicine, accomplishing the seemingly impossible; the economic division of labor, typified in the many specialties, permitting and compelling the highest degree of proficiency in every branch of medical achievement; all these place the science and art of modern medicine above all others of vital importance to the well-being and life of mankind.

No sphere of human activity excells the achievements of the coördinate sciences of medicine and the brilliant accomplishments of surgery; and we may be permitted to indulge a pardonable pride in the part played by members of our own local profession in the great scientific drama of our day.

Let these truths broaden your views and stimulate you to put forth your best endeavors to achieve the highest ideals of attainment. Be not content to drone your lives away like tow-path mules of medicine.

Rise above mediocrity. Strive to outstrip all runners in the race. With every nerve and muscle tense, leap forward to the goal.

Above all things, be studious. Be the first to know each new discovery. An ignorant doctor is an unpardonable sin. "Doctor" means learned. You should be learned above all your neighbors. You should be looked to as leaders in your community. You should diversify your learning beyond the confines of medicine;

*Delivered at the commencement of Illinois Medical College, the Medical Department of Loyola University, April 29, 1910.

and, to broaden your culture, you should strive to excell in some important branch of learning.

The profession and the people would profit alike if the able physicians of America, like the brilliant teachers of foreign lands, of whom the erudite Virchow was an illustrious example, would engage in the study and actual practice of political economy. The philosophy of good government is a subject worthy of the work of the best minds a great country can produce. In such lands as Germany, Italy, and the South American republics, physicians of culture honor themselves and their profession in the highest councils of their governments.

Need of a Bureau of Health

When will the people of America awaken to their own most vital interests and dedicate a government bureau, with a medical head, to the cause of disease prevention, state medicine, and higher education? We are blessed with a department of agriculture that predicts the weather; a department of war that relieves us of our surplus millions; a department of law that really fights the nation's battles. The time must come when state medicine shall be represented in the national government, to protect against invasions of contagious diseases and to safeguard the nation's health in every quarter. Our local profession contains within its ranks the ability and the experience to organize, equip and properly conduct such a department of state, and President Taft is said to favor it.

Not until the government of the United States recognizes the vast possibilities of state medicine to conserve the health and vigor of the nation and to save the great waste of human life that modern scientific research has rendered preventable can it lay claim to being abreast of the times and the first of the nations of the earth.

It has been the custom in the past to say to graduating classes, "Your school-days are ended, you now enter upon a life of activity, a career of usefulness," and so on; but in these days of postgraduate schools, in which a college education can be supplemented by actual experience in the practice of medicine, your schooling should not end with a blue ribbon and a parchment.

Time was when no physician was considered to have been initiated into the highest degrees of proficiency until he had crossed the Atlantic and walked the wards of the Old World hopsitals. But conditions are changed. American teachers of today stand abreast of the world. These are not idle claims. They are verified, not only by Americans conversant with European teaching and practice, but are substantiated to the satisfaction of European scientists who visit our schools, laboratories, and hospitals. Within the present month the highest encomiums have been bestowed upon these institutions by no less an authority than one of the greatest surgeons of Europe.

It is evident, then, that you may enjoy the advantages offered by home facilities to perfect yourselves in postgraduate work with far less loss of time and money than it cost your predecessors. But travel enlarges the views, expands the intellectual horizon and broadens culture. Visits to foreign countries lend polish to the manners, evoke the spirit of tolerance and stifle bigotry. The diversified teachings of Old-World medical centers will arm you with those principles and methods that contribute to a finished education and a successful practice.

Therefore, let those who have walked the beaten paths you are to tread exhort you to cap the climax of a collegiate course with the practical knowledge and skill obtainable under the direction of eminent specialists in hospital and dispen sary practice, first at home and afterward abroad.

The World Does Not Owe You a Living

It is appropriate at this time to tone down the roseate hues of your imaginative pictures of the future with the neutral tints of reality. A diploma is not a lien on the public for a living. That pretty and attractive sign you have in mind, with the big M. D. in shining letters of gold or glittering silver, will not be an unfailing magnet to draw the masses of suffering humanity into your health-bestowing pres-

ence. The fund of knowledge you have stored within the temple of the mind will not find quick appreciation and admiration. Then let the truth be spoken and faced without flinching.

You will now set sail amid the smiles of heaven and the plaudits of teachers and friends. Good wishes and flowers illuminate your pleasant pathway; but no bouquets of rhetoric can screen you from the harassing storms or the dangerous breakers ahead. Your schooling, good sense, self-reliance, and trust in God must sustain you in the time of need, and I doubt not that you will prove an honor to Illinois Medical College and its godmother, Loyola University.

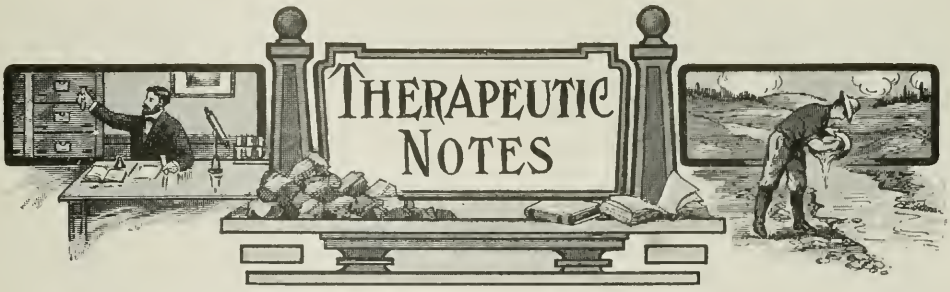
Remember that the ideal physician is the soul of truth and honor. His sympathetic words of cheer and sound advice anchor in the heart. He stands like an oasis in the desert, like a cross of hope, and you linger in his presence and cling to his personality. You feel him to be worthy of your love; no trust is violated and no confidence is betrayed. With a mind well stored with medical lore; with a wealth of the richest professional experience; with a broad philanthropy that the world should bless with material abundance, this noble son of the healing art rescues the name of physician from the selfish and sordid estate to which the unworthy would drag it, and adorns it with the transcendent glory of a great manhood.

All types of medical men you will meet. You should have no quarrel with any. You should cultivate the society and friendship of your equals, and, perhaps, of your betters. You should be guided by the principles of the immortal Hippocrates and the code of ethics of the American Medical Association. With homeopathists and eclectics you will have an honest but good-natured difference. Life is too short and charity is too broad to permit of bickerings. Be generous enough to credit every competitor with sincerity, as you would be credited. Remember our laws, to which we all alike are amenable. Your privileges and theirs are identical, and their respect and friendship are worth many times their hate.

To your patients be true. Their interests and yours are one, for the greater good you do to them, the more success it will reflect on you. In the alleviation of suffering you will derive much satisfaction; in the conquering of disease you will delight. Commit one robbery at every opportunity —rob Death of his prey. While you may not be able to realize for this service a fee commensurate with the law's estimate of the value of a human life—the sum of $10,000—you will enjoy the consciousness of having rendered a fellow being an inestimable service, and of having fulfilled the utmost requirements of a most exacting profession.

Adopt correct business methods. Whether you practice general medicine or whether you specialize, in some particular branch, let your rule be, "Cash on delivery."

Finally, your personal influence over the sick and the dying may turn tears into smiles and darkness into light. The attributes of the true physician, united with an inspiring Christian character, present an ideal type of manhood and useful citizenship. Such a physician instills the dew of courage into the drooping soul, refreshes the withering heart with rainbows of promise, and paves the pathway of the dying with the peaceful flowers of hope.



CALLUS FORMATION

According to Paul Carnot, *Paris Médical*, 1911, No. 49, Canal, also Morel, have found that the administration of parathyroid extract hastens the calcification of callus, and the healing of broken bones.

A LITTLE THING

What a little thing the active-principle advocate asks—that the doctor shall not give any medicine unless he knows why he gives it and what he expects it to do. But if you admit this, the whole of our argument follows logically. Doesn't it? Think it over.

MIGRAINE IN CHILDREN CURED BY THYROID THERAPY

According to *Paris Médical*, April 8, 1911, L. Levi and H. de Rothschild reported to the Academy of Medicine (Paris) twelve cases of migraine in children in which prolonged treatment with thyroid preparations produced a cure.

CALCIUM LACTATE IN EPILEPSY

Lallemant and Dupouy, in *Gazette des Hopitaux* (abstr. in *The Prescriber*, Dec. 10, 1910) have tried six months' treatment by calcium lactate in twenty cases of epilepsy, but they found that the condition of the patients at the end of the treatment was unchanged and the number of attacks was not diminished.

There is no "specific" for epilepsy but improvement usually follows correction of sources of reflex irritability about the nose, eyes, alimentary canal and genitalia; a restricted and abstemious dietetic regimen, with proper "clean-out" and intestinal antisepsis; cardiac support with digitalin or adonidin; and sedation with verbenin and solanine.

IDIOSYNCRASY TO CHLOROFORM

Dr. Redmond Roche writes, in *The British Medical Journal*, March 26, 1910, as follows:

"A male patient, aged 45, has had administered to him on three different occasions, at intervals of about a year, very small doses of a coaltar product—phenacetin once, antipyrin twice; the last time only one 5-grain dose was taken. On each occasion almost immediately a curious condition supervened entirely confined to the mouth. The lips were considerably swollen, the mouth became very sore, and the gums were tender, but no ulceration followed. This condition was quite distressing—admitted only of soft food being taken, and lasted for several days."

UNBILICAL AND OTHER HEMORRHAGES

Dr. A. S. Cook, of Monticello, Kentucky, writes that he has had excellent results in the treatment of umbilical and other hemorrhages by the application of a dough made from wheat flour. This is applied directly to the bleeding surface. The effect is probably mechanical, for so far as known no medicinal properties have ever been attributed to the grain of the wheat. This does not indicate that it has no medicinal powers. An alkaloid with remarkable properties is found in exceedingly minute proportion in oats. An active principle exists in the peanut, which accounts for the exhilaration shown by those who partake

of it in large quantities. The hull of the garden bean is an esteemed remedy in the hands of our eclectic colleagues, while the herb, summer savory, satureia hortensis, is an exceedingly effective emmenagog.

BREAD WHICH HELPS IN CONSTIPATION

Dr. E. C. Cary, Welcome, Wisconsin, finds that patients afflicted with chronic constipation respond satisfactorily when placed upon a bread composed of one quart of bran; one pint of flour; one cup sour milk; one cup molasses and one pinch of salt. If members of the "family" try this bread we trust they will report results.

FLEXNER'S MENINGITIS SERUM

The announcement has recently been made that Dr. Simon Flexner, director of the Rockefeller Institute for Medical Research, has found a cure for spinal meningitis, and that its use will reduce the number of fatalities by nine-tenths. The serum was discovered some time ago, but the practical means of applying it were not determined until after a number of experiments. As a result of these, injection of the serum into the spinal canal was tried, which proved successful.

TIN IN CANNED GOODS

Dr. Wiley, of whom our readers have probably heard, has made a discovery of considerable importance: This is, that tin is frequently to be found in notable quantities in canned goods which are not acid. Fish, beets, lima beans, asparagus, and pumpkins, although almost devoid of acid, have a marked solvent action on the tin lining of the containers. All fish contains amins and amino acids which act strongly as solvents of this metal.

DEFERRED CHLOROFORM INTOXICATION

Vittorio Brun, studying the symptoms and lesions in deferred chloroform accidents, considers the patient's age, previous health, and the quantity of chloroform employed. These cases occur in children less than 12 years old, whose livers are more vulnerable. The maladies presenting danger are rachitism, tuberculosis, the lymphatic state, septicemias, intoxications, anemia, and intestinal helminthiasis. In one chloroform death not one of these could be detected.

When chloroform is contraindicated Brun substitutes kelene. If the child is only 2 to 10 months old, avoid narcosis. Be watchful of the young before and after anesthesia.

ALUM IN HERPES

Dr. Geo. O. Williams, of New York, has found a saturated watery solution of alum practically a specific in herpes, applying it even to the conjunctiva or the cornea. The results have been most satisfactory. This is especially noteworthy in view of the fact that the applications ordinarily employed for herpes are of very little use. This very annoying and disfiguring malady usually runs it scourse unaffected by treatment.

ACONITINE IN NEURALGIAS

The *Wiener Medizinische Wochenschrift* reports that Fuchs saw excellent results from the administration of aconitine for the lancinating pain in tabetic patients and in trigeminal neuralgia. The aconitine was administered in the form of pills suggested by Moussette, each pill containing 0.2 milligrams (1-320 grain) of aconitine. The maximal daily dose is 10 pills, or 2 milligrams (1-32 grain) per day. The value of aconitine in neuralgia has been known long to physicians familiar with alkaloidal remedies.

THYMOL IN HOOKWORM DISEASE

Stiles and Leonard (*Public Health Reports*, for December 8, 1911), of the Public Health and Marine Hospital Service, report excellent success, in several cases of hookworm disease, with small doses of thymol without the customary preliminary administration of magnesium sulphate, and recommend that this method be followed especially in

cases where it is necessary to safeguard in every possible way all the strength possessed by the patient. In some instances the thymol was followed, though not preceded, by magnesium sulphate, and the number of worms expelled was sometimes very large, considering the smallness of the dose of the remedy.

THE CAUSE AND THYROID TREATMENT OF SOMNOLENCY

E. Marchiafava, of Rome (noted in *Folia Therapeutica* for October, 1911), believes that the balance between sleep and sleeplessness is held by the thyroid gland. Two patients of his, both suffering from thyroid insufficiency, manifested an irresistible desire to sleep. This was not the heaviness and dulness of myxedema, but a definite longing to close their eyes and sleep, irrespective of time and place. When the patients were given thyroid internally this troublesome symptom rapidly subsided. In support of Marchiafava's view, it may be recalled that an excess of thyroid tends to wakefulness, as is seen in sufferers from Graves's disease, who often are victims of insomnia. Other writers have, before this, attested to these same facts.

TREATMENT OF FALLING HAIR

Dr. Walter I. LeFevre contributes a paper on this subject to *The Medical Era* for November (1911), which is remarkable for the good sense and plausibility of the ideas advanced, both as regards the etiology of baldness and the treatment. The author has developed a routine office treatment for this condition, as follows:

The patient is placed under the vacuum-cap for ten to fifteen minutes; then he receives an electric shower to the scalp from the high-frequency coil. In small bald pots the galvanic current is used, either pole being applied, a current of eight to twelve milliamperes being used. After this, massage is given by means of a compressed-air vibrator with a soft-rubber applicator, and finally all patients receive an application of a good antiseptic lotion, the ingredients and strength depending upon the condition of the scalp. The author recommends as a nice lotion for constant use for the healthy scalp equal parts of alcohol and bay rum.

TREATMENT OF HEMORRHOIDS

Dr. Julius Toth (*Wien. Med. Woch.*, 1910, No. 47) describes a simple method for relieving the stasis of venous blood which is responsible for the occurrence of socalled external hemorrhoids. He instructs his patients to insert between the internal and the external sphincter a loosely rolled pledget of absorbent cotton, which need not be larger than a good-sized pea, so as to avoid all irritation leading to its spontaneous expulsion. Such a pledget is to be introduced after each defecation, and one should be in place day and night.

The author claims that by this treatment the hemorrhoidal nodes are made to shrink and that the dilated vessels become obliterated in course of time. The advantage of the method consists in the absence of all instrumental interference.

CACTUS GRANDIFLORUS

The *Deutsch-Amerikanische Apotheker Zeitung* cites the *Zeitschrift des Allgemeinen Oesterreichischen Apotheker-Vereins* as follows:

The fluid extract of cactus grandiflorus is coming again into favor. The remedy, which is considered as a good heart stimulant, had been looked upon with suspicion owing to several failures but it has been shown that these are due to the fact that the preparation put on the market by some firms under the name of Extractus Cactus Grandiflori was made from Opuntia Ficus Indica. This must be designated as a fraud. Opuntia contains no body which has a physiologic action, while such a one has been found in cereus in the form of a combination which gives glucoside-alkaloid reactions. The true extract is obtained from the second shoots of cereus ("Achsentrieben"). The cactus extract is recommended in cardiac weakness during convalescence from infectious diseases, in cardiac asthma, in Graves' disease,

and represents a substitute for digitalis. [Cactus—or cactin—is *not* a substitute for digitalis and should not be so used. Cactus sedates the irritable heart—is a "balancer," restoring normal tonal conditions.—Ed.] Cactus cannot completely replace digitalis, since it fails in advanced heart weakness, but its mild tonic action and the absence of cumulative symptoms as well as by-effects on heart, nerves and stomach are particularly valuable. The dose is from 10 to 30 drops three or four times daily.

LACTIC-ACID BACILLI IN PUERPERAL INFECTION

Brindeau (*Paris Médical*, 1911, p. 475) reported to the twelfth meeting of the French Obstetrical Society the results of his investigations with cultures of the lactic-acid bacillus in the treatment of puerperal sepsis. It appears that the cultures act primarily by the lactic acid which they cause to form, and also as a leukocytogenic agent. Their employment is entirely harmless, cultures having been injected into the peritoneum and into the circulation without causing any accident whatever.

From his sixty-one observations the author concluded that the lactic-acid bacillus exerts only a slight action in puerperal endometritis (eleven cases), but that it gives excellent results in mammary abscess, in fistulæ following such abscesses (twelve cases), and in the large wounds of the genital tract.

BLOOD SERUM INJECTION FOR HEMORRHAGE

Dr. Clement F. Theisen has contributed an interesting clinical report to *The Annals of Otology, Rhinology and Laryngology*, for last September, in which he illustrates the probable value of injections of blood-serum in cases of hemorrhage when other methods fail or when the patient is so reduced from loss of blood that operative treatment for the purpose of stopping the hemorrhage is impossible.

Among the cases reported one is particularly noticeable, because the hemorrhage occurred several hours after the removal of tonsils and adenoids by dissection and snare. While the immediate oozing had been stopped promptly, severe hemorrhage occurred in the early evening of the day of operation, which was controlled only by the injection of 5000 units of diphtheria antitoxin, normal blood-serum not being at hand. In this instance the possibility of hemophilia has to be considered.

Another case of interest was in a woman, aged 50, who had been having a nasal hemorrhage lasting, with few intermissions, almost the entire preceding night. Tamponing had been unavailing, but the injection of 10 Cc. of normal blood-serum (horse) was followed by a diminution of bleeding, while a second injection during the night completely controlled the hemorrhage.

We refer to this report, because such accidents are frequent enough in general practice, not alone after tonsillectomy, but those cases of uncontrollable nose bleed, as well as, in some patients, after the extraction of teeth and other minor operations. Normal horse serum is now available from manufacturers.

TREATMENT OF HODGKIN'S DISEASE

Geo. R. Murray in a paper on the treatment of some diseases of the lymphatic glands and spleen (*Lancet*, March 4, 1911), strongly urges open-air treatment for cases of Hodgkin's disease. Arsenic, he advises, should be given in large doses. Roentgen rays are of value, leading to a surprisingly rapid reduction in the size of the spleen and markedly controlling the excess of the white blood-corpuscles. The applications should be persisted in for two or three months, and then given once a month.

In the discussion, Dr. C. H. Melland said that arsenic had given him excellent results. It should be given in large doses, stopped for a while, then large doses, and finally the patient kept on a course of small doses. Roentgen rays, he thought, were effective, but he preferred to start with arsenic, and when this appeared to be failing in its effect, then to go on to the x-rays.

Mucomembranous Enterocolitis in Its Relation to the Liver

MUCOMEMBRANOUS enteritis, or, (since the colon is more concerned in this disease) more properly mucomembranous enterocolitis is a widely prevalent disease.

The etiology of this disease is most diverse, some considering a sedentary life as its cause, others nervousness, and still others, arthritism. The principal and more recently recognized cause of mucomembranous enterocolitis is the invasion of the colon by microbes which especially attack the ascending colon, and above all the cecum. Recent microbic examinations have shown that the large intestine (the cecum included) commonly contains a flora of microbes exceeding in abundance by far all the rest of the microbes in the other parts of the bowel.

The invasion of the large intestine by microbes may cause not only a mucomembranous entercolitis, but also an appendicitis, and also an irritation of the liver resulting in its functional insufficiency. Thus we may have a vicious circle, an infection of the intestine producing an insufficiency of the liver, and this insufficiency helping to keep up the infection of the intestine, since the bile is the best intestinal antiseptic, and its absence or its insufficient quantity will make itself felt very soon.

Arthritism has been given by some as a cause of mucomembranous enterocolitis; but is not arthritism frequently also a consequence of insufficiency of the liver?

Work pursued in the laboratory of Dr. Mathieu, the eminent specialist in diseases of the digestion, resulted in establishing the fact that, not only is mucomembranous enterocolitis a definite disease, but also that the characteristic sign of this disease is the presence of mucus and false membranes in the feces.

The intestinal mucus in the normal state is constant, but in mucomembranous enterocolitis there is an intestinal hypersecretion of mucus provoked by an intense and prolonged irritation of the intestine. This irritation is frequently due to bad alimentation, sometimes to a too abundant dietary, but more often to a too rich flora of microbes in the intestine and to an intoxication kept up by constipation.

This hypersecretion of mucus was obtained experimentally by irritating the rectum in animals with various irritant substances.

The mucus which is ordinarily necessary for the smooth propulsion of the intestinal contents is absorbed in the descending colon, if there is not too much of it. Aiding in the absorption of this intestinal mucus is the presence of a ferment called "mucinase,"* which hinders the coagulation of the mucus, which coagulation produces the false membranes.

*The word "mucinase" was new to the GLEANER, so he applied to our biological laboratory for information, and the following is what he received from its director, Dr. Biehn: "Mucinase is a ferment, one of the many now known, that have to do with the regulation of the digestive processes. Many of them are produced by the intestinal epithelium and some by the pancreas. They stimulate the production and regulate the active changes produced by the digestive juices."

Neper and Riva have established the fact, experimentally, that the bile opposes that coagulation and so, consequently, facilitates the absorption of the intestinal mucus. The bile, therefore, as one of its functions, prevents the formation of false membranes.

Biliary insufficiency is, therefore, either the main or secondary cause of mucomembranous enterocolitis. The bile acts only on the mucinase, and it acts as an intestinal antiseptic.

If the function of the liver is well performed then the flora of intestinal microbes is less abundant; and if the liver is only partially insufficient it may become so definitely, through having no normal defensive means against prolonged irritation from the intestine. Is this not assumed at the present as the origin of cirrhosis of the liver? An insufficient liver, without being cirrhotic, may become a starting point for intestinal infection, such as appendicitis for instance.

An insufficient liver may also become the starting point for arthritism or for various dermatoses. Have we not seen rheumatics improve upon being approptiately treated for the functional liver defect? And have we not also seen (and that quite often) how tenacious dermatoses sometimes disappear when we stimulate the biliary secretions with boldine?

The action of the liver is at present known to be far more extended than it was formerly thought, so that a certain type of neurasthenia is claimed to be of biliary origin and this is called hepatic neurasthenia. [*O quam tempora mutantur nos et mutamur in illis!* When the Gleaner graduated in the fifties of the last century the liver was then the greatest *nosoetiological* member of the human body. That happened before the kidney took the place of honor.]

To return to our subject of mucomembranous enterocolitis we have to say that hepatic troubles, notably biliary lithiasis, have been observed as a concomitant in colitis.

Dr. Mathieu has pointed out the displacement of the liver, its congestion or, more exactly, its retraction and the diminution or even the complete absence of the bile in the course of mucomembranous enterocolitis. Potain also has long ago found the cause of colitis to be deficiency of biliary secretion.

Enemas and purgatives can only be palliatives in the treatment of colitis, for in the long run they can not but be productive of intestinal irritation. Effervescent magnesium sulphate is a purgative salt against which the above objection can not be made.

Enemas too frequently repeated are liable to keep up the disease rather than be useful against it.

In the treatment of colitis the need above all is to activate the secretion of the bile and, if need be, to replace it when all means to augment the secretion fail. Boldine answers well to the first indication.

It is, in fact, the liver which throws the bile into the intestine that facilitates assimilation and prevents fermentation. Hepatic insufficiency is as much a primary as it is a secondary cause of autointoxication. Boldine besides being sedative in action also acts manifestly as a stimulant on the secretion of bile.

If, in spite of boldine, the hepatic insufficiency makes itself felt then we must, while continuing to administer it, supplement it also with the biliary salts.—Dr. Pigeaud in *la Dosimetrie*, November, 1911.

GENIUS AND MENTAL DEBILITY

P. Pierre writes in the *Mercure de France* (No. 12, 1907), about the connection between genius and mental debility, as follows:

Even the man of genius may become the victim of mental disease, and he may write the best of his works while he is suffering from it. Although Nietzsche was insane, according to our scientists, when he wrote the greatest of his works, yet have they enlightened a part of mankind. Whether the creator of his works was sane or insane is a matter of concern to him alone; for humanity, his creation alone is to be considered.

It is generally impossible to conclude from the character of a work as to the circumstances under which it was produced. When a creative man happens not to possess sufficient psychic motility to free himself from every-day drudgery, then he turns

for help to narcotics, the most prevalent of which is alcohol. This supplies no new powers but only destroys the old ones; yet experience has taught mankind that this destruction is necessary in order to create something new. It would be absurd to deprive cities of their most beautiful works of art because they originated under the stimulus of alcoholic inebriation. And equally absurd it would be to bring those works into disrepute which have originated under the influence of a mental disease which ended fatally; this kind of intoxication, too, may have been the means of liberating the energies which produced those works.

This was no doubt the case with Nietzsche. He would not have created his Zarathustra had he remained in good health. The paralytic inebriation was for him the most sublime inspiration. He completed his work, as a result of the same forces which destroyed his life.

From Giotto to Rembrandt, from Mozart to Wagner, from Ptolomy to eternity, there runs, furrow-like, the tendency to the dissolution of life. This seems to be the main feature of all revolution and upturning. Poor, creating, human beings are dissolved in order that the subliminal possessions of their lives may come to the light.

Nothing characterizes so much our sick age as the fact that mental disease and alcoholic intoxication are made cofactors in the principle of progress. Poor age, poor humanity, if ye have no better foundation than these for the revelation of that which is highest and most beautiful!—*Glauben und Wissen*, October, 1905.

BITING THE NAILS TREATED BY CHEWING GUM

Biting the nails is a vicious habit frequently met with in children, and quite often in grown people also. In some persons it amounts to a mania which is difficult to combat. To prevent it by the permanent wearing of gloves is impracticable and requires constant surveillance. Painting the tips of the fingers with bitter solutions, say of quinine, aloes, or quassia is often done, but without much success. This treatment requires great perseverance on the part of the parents, but is apt to fail in subjects whose nervous systems are, for hereditary reasons, especially fragile.

Some authors use the method of Didsbury, which consists in covering permanently the upper and lower molars with metallic plates fastened to them with cement or gutta percha, thus keeping the front upper teeth forcibly apart from the lower front teeth; this makes chewing difficult, and the nails cannot be bitten.

This procedure is very efficacious, especially in cases of inveterate onychophags; yet, to say the least, it is quite complicated, since it requires the services of the dentist.

But instead of disarming the teeth, according to the Didsbury method, it occurred to us to be more simple to put the teeth to work by chewing some masticatory, as is very prevalent in North America and is beginning to be the case also in Europe, especially in Paris, where these substances are easily procurable in many of the tobacco stores. We have urged the onychophags, whom we have had occasion to treat, to provide themselves with some such chewing material [chewing gum?—Ed.] and to chew a little of this whenever they are taken with the irresistible desire to bite the nails. The results obtained were immediate and perfect, to the great surprise of the parents of our little patients, who could not believe their eyes, after having tried everything to suppress this vile habit in their children.

This treatment offers some slight inconvenience. These onychophags belong to the class of nervous individuals who are candidates for all kinds of manias. Some of them will only change the trick, and become "ruminants" instead of being "rodents." But trick for trick it is always preferable to have a better trick than a worse one. Onychophagia may provoke an extremely unsightly deformation of the fingers and give rise to sores or to infections. The chewing [of gum] on the contrary acts favorably on the stomach digestion, either by exciting gustatory reflexes (the importance of which has been so well worked out by Pawlow) or by augmenting the salivary secretions which facilitate the digestion of

amylaceous matters.—Dr. G. Schreiber, in *Paris Médical*, October 14, 1911.

OBESITY AND THE THYROID GLAND

In the *Journal de Médécine de Bordeaux* (Jan. 8, 1911), there appears, an article by Jacques Carles, of which the following is an abstract.

Obesity is a syndrome resulting from various pathologic states, consequently the treatment with thyroidin can not be applicable in all cases without meeting with failure in a certain number. Obesity frequently is connected with thyroid insufficiency and thyroid opotherapy in such cases gives excellent results.

After being in great vogue for a time, this treatment was somewhat abandoned and considered to be dangerous. But it does not merit at all that disfavor, for it is capable of rendering great service provided it be not resorted to indiscriminately. The observations which the author has made are very convincing, and they have led him to the following conclusions:

(1.) Opotherapic thyroid treatment appears to be useful in certain forms of obesity. (2) The class of obese persons who suffer from thyroid insufficiency frequently derive from this treatment remarkable benefits. (3) Thyroid deficiency in an obese woman may be associated with ovarian and other deficiencies, and here the opotherapeutic course ought to be a mixed one. (4) If the thyroid deficiency is slight, opotherapy must be practised with great precaution, and generally it will prove useless to prolong its employment. (5) Thyroidin must be administered to the obese in minimal doses only (0.10 to 0.20 Gram every two days, and even smaller doses). This dosage, although smaller than that indicated by most authors, appears to the author sufficient, yet not enough to provoke the various accidents which thus far have discredited the use of thyroidin.

Thyroid should never be advised except for obese persons whose organs are healthy and over whom a close surveillance can be exercised.—*La Province Médicale*, 1911, p. 79.

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[We have suggested the use of a combination of colchicine, strychnine, berberine, caffeine, apocynin and alnuin in obesity, and it has worked beautifully—both with and without the thyroid, which must be given cautiously.—Ed.]

GIGANTISM AND SEXUAL INFANTILISM

Gigantism is often accompanied by a state of infantilism, or, better, by an arrest of development, more or less pronounced, of the genital organs, which remain in an infantile condition. In the case of a classic acromegalic giant, observed by M. N. Sarteschi in the *Revista Italiana de Neuropathologia, Psichiatria et Elettroterapia*, Vol IV, p. 49–58, 1911, the genital organs were very small. No hair developed on the pubis, in the axilla nor on the face. The patient never had an erection, and was never carried away by libidinous desire.

The contrary fact of the absence of any degree of psychic infantilism in this case is of special interest. We have seen many giants whose mentality manifested their insufficiency corresponding to their general infantile character, but this man has a clear intellect and an excellent memory. He is also fully conscious of his condition, and appreciates its importance to the medical profession at its full value. He is calm and tranquil and when irritated, the mental disturbance is of short duration if he finds himself the butt of mockery.

This dissociation of sexual infantilism from psychic infantilism is not the only peculiarity noticeable in this giant. He is seventy years of age *and this makes him the oldest giant known.*

Lastly, radiography *does not show in this case any augmentation of the capacity of the sella turcica*, consequently no tumefaction of the hypophysis, while the other cranial radiographic characters of acromegalia exist here completely, such as great development of the frontal sinuses and of the superciliary ridges, thickness of the bones, and so on. This does, however, not constitute any argument against the pituitary theory in acromegalia. We have no information on the subject of accessory hypophyses and the radiography of the cranium permits the supposition of the existence of a craniopharyngeal canal of an appreciable caliber.

Pneumonia Can Be Aborted

I ASK for an opportunity to have my little say about pneumonia. Any one who has tried the system of treating this common disease by the method outlined so many times in this journal—namely by means of the dosimetric trinity and the rest of the procedure—knows that pneumonia *can* be aborted. Our bigoted friends, who condemn an innovation without knowing what they are talking about, can say all they please about "mistaken diagnosis," but that does not make it so.

Any man who is familiar with and adopts this general line of treatment knows from his own experience that one of two things is true: either pneumouia can be aborted, or the disease that we are mistaken in calling by that name, but that kills people just the same, is on the decrease. Our friends who say we are wrong are kind enough to suggest that what we abort is only a "congestion." That is precisely what we do do—that is, when we are called early enough.

I opine the rest of you fellows have had the same experience as myself: called to see a case in congestive stage, watched it go on to consolidation, and, many a time, to its last stage—the cemetery. Yet when the death certificate is made out it doesn't read "congestion." But nowadays that is not so often the outcome. Look over your case-records; compare results under the old system and at present. If you have given the system of treatment referred to a fair trial, I am sure you can see the difference. I know I can.

Let our high-brow friends say what they please, but you keep right on with those methods that reduce your mortality record. Some of us out in the "tall and uncut" may not measure so many inches from the end of the nose to the rear collar-button, but that is not the reason why we sometimes fail to spell "pneumonia" according to the Unabridged. Practice is what makes perfect, and we of the backwoods may not get as many opportunities to write that jumble of letters into death-certificates. So, really, the only regrettable result that I can see to follow the improved method of treating the aforementioned disease is that, maybe, it is going to hurt our so-called orthography.

Now, seriously, I do not contend that all persons attacked by pneumonia can be saved, but I do know that the mortality can be greatly reduced by appropriate management. If those who have not yet given the dosimetric treatment a trial will only do so, honestly, fairly, and fully, they surely will find that there is something in it, after all.

Some day I may tell you something of my experience with eclampsia. I have been unfortunate enough to have several cases, and possibly may be able to help others by telling my experience, just as I am so often benefited by reading of other men's experiences in CLINICAL MEDICINE.

CLEMENT H. SMITH.

Gold Hill, Ore.

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[We want that experience with eclampsia. Don't wait, Doctor. Send it in, and we'll "bunch" it with a number of other articles which we have on the subject.

As to pneumonia, Dr. Smith states our position exactly. Those who have most to say about the "uselessness" of the dosi-

metric way of treating this disease are those who know nothing about it. All we ask of any man is that he shall try these remedies —aconitine, veratrine, digitalin, strychnine arsenate—with other indicated measures, calmly, carefully and judicially, in a small series of cases. That will tell the story—for us or against us. It's a test which any doctor should be glad to make, for his patient's sake, if not for his own.—Ed.]

HOW I TREAT PNEUMONIA AND BRONCHOPNEUMONIA

Years ago, when Dr. W. C. Abbott told us how to abort pneumonia, I wanted to hit him over the head with a stuffed club; even now I do not like to hear him talk about aborting typhoid fever with the intestinal antiseptics. Yet my experience with the active principles, in pneumonia and other acute diseases of the lung, has taught me many good things to which I shall hold fast until something better presents itself. The following cases will illustrate how I go about it:

My two little girls (shown in the picture) were my first cases—Grace (on the left) then three years old, and Ada (on the right) five years of age. When I returned home on December 24 last, I found baby Grace as follows: Temperature, 104° F., which had been preceded by a chill; respiration, 50; the nostrils retracted in breathing; flushed cheeks; pain in the side; and, then, that anxious expression of the face that caused her papa to bestir himself. Granules of digitalin, aconitine, and veratrine, four of each, were put into a glass containing twenty-four teaspoonfuls of water, and one teaspoonful of this was given every fifteen minutes, for a short time at first, and then every half hour. [The doctor followed Shaller's "aconitine rule," which is: one granule for each year of the child's age, plus "one for the glass," in twenty-four teaspoonfuls of water.—Ed.]

In order to cut short the further absorption of putrefactive visceral poisons, to obviate the formation of gas, and to drain the blood away from the congested lung, I proceeded to clean out the bowels thoroughly. In addition, a wet towel, wrung from a basin of ice water encircled the chest, with a dry one over it, and this was repeated every two hours.

This treatment began at 6 o'clock, and at 9 everything seemed to be normal. So I went to sleep for the night, but was called at 1 a. m., and found the same condition again as at the beginning. The same treatment was instituted as before, with the same satisfactory result. In the morning she ate breakfast and went to her dolls;

Children of Dr. S. C. Martt, Houston, Ohio

nevertheless, the alkaloidal guns were heard firing once in a while until noon, when the battle was over.

About a month later Mr. Whooping-Cough came in to visit these little girls, and Bronchopneumonia had to take a hand in the battle at three different times, but was knocked out each time about the second round, so left for parts unknown.

Another case: I was called out last January (1911) to a family four miles in the country, to see little Johnny, twelve years old. I found him suffering with a pain in the side; flushed face; temperature, 104.5° F; respiration, 60; nostrils retracted in breathing.

I had some difficulty in getting the parents to consent to the cold wet cloths. This was early in the morning. In the evening they telephoned for me, saying the boy was "so quiet." Hurrying out, I found him sleeping nicely, his temperature normal, and, in fact everything seemed to be normal but the lung. I left a thermometer and told them the cold-pack was not to be used when the temperature was below 102° F. That was all.

Now, I hear some of the brethren say: "What about the pocketbook?" Abbott says charge them accordingly, when the course of the disease is cut short; but you cannot do that very easily. The worst thing of all was that the father got away in the night, and beat me out of 50 percent of the bill—even if it was absurdly small.

There is one other point I want to bring out. A day or two later Johnny's little sister was attacked with the same disease, and then the mother tried the cold-pack, but without the alkaloids, and failed. But a few shots with the alkaloids, properly aimed, brought the answer.

What would have been the result in my home had I given some morphine in Grace's case. I have seen morphine and the blister used for "that side-pain," and funerals have followed nearly every time. I sincerely hope that the finger of that kind Providence that looks over young doctors will touch the shoulder of those tempted to use this narcotic, for disastrous results arise from such treatment as that.

S. C. Martt.

Houston, O.

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[Dr. Martt is learning. He will be as big a "crank" as the rest of us with regard to the intestinal antiseptics in typhoid fever—and before long, too. He has seen what can be done in pneumonia and some other winter ailments—and he will not stop with these.—Ed.]

THERAPEUTIC LIGHT TREATMENT

The following cases I report from memory, the notes having been lost when changing residence.

Simon H., 18 years old, Complained of pain and stiffness on left side of neck. Was treated internally and externally for torticollis, for two weeks, with no relief; in fact, he was getting worse. The mastoid muscle was swollen, hard, and the surrounding tissues were infiltrated. It looked as though a very large abscess were forming. He was given fifteen therapeutic-light treatments of twenty minutes each, every day for the first five days, then three times a week. Pain was relieved from first and improvement progressive from the beginning. No other treatment was given. Resolution was complete, the neck apparently being normal.

C. H., 35 years old. No history of injury. A small swelling on upper and outer side of third finger, left hand; back of hand greatly swollen, hot, red and painful, a vivid red streak running from the finger half-way up the forearm. Light was applied for ten minutes, whereupon the pain was completely relieved. Next day the swelling was all gone; no pain; red streak barely perceptible on lower forearm. I opened the very small pocket of pus on the finger with a small incision, then applied the light for ten minutes. Cure complete; no more trouble. No other treatment.

Mrs. P., aged 39 years. Alveolar abscess under left bicuspid, causing intense pain. Light was applied over the external swelling for ten minutes, when the pain was completely relieved, and two days afterward the swelling was gone, without the evacuation of any pus.

G. L. B., 24 years old. A patch of pigmented eczema on left breast above the nipple about two and a half by four inches. Had existed for six years and been treated by a skilful dermatologist, without relief; eleven treatments with light were given, of ten to fifteen minutes' duration each, and extending over one month. Itching was promptly relieved and cure complete.

H. A., 23 years old. Infected by burn on elbow of right arm. Upper arm swollen, bronze-red, hard and painful; arm fully four times normal size. Temperature, 104° F.; man seriously ill. An incision was made about three inches above the elbow, on inside of arm. No pus was found, and a

probe passed full half-way through the arm brought away only a little bloody serum and a few flakes of dead tissue. Light was used over the arm twenty minutes daily for a week. Pain ceased at once, and temperature declined to normal in three days. The last three days the high-frequency current was used with a vacuum electrode, monopolar discharge, which brought away some pus. The patient could also express pus by strong flexion of forearm on arm. Recovery was complete. This was a very bad case of infection.

In the foregoing cases I employed a Robinson 100 candle-power lamp, holding it steady as close as the patient could bear it part of the time, and then moving it back and forth as close as possible without touching the patient.

A. K., 39 years old. Chronic bronchitis of sixteen years' standing; frequent and severe attacks of asthma. I gave treatments with light of forty to forty-five minutes, divided between the sides, front and back of thorax, two to three times a week, continued for three months. Relief was prompt, and while the cure was not complete, the patient has had no severe attack since then, that is, July, 1909. In this case I used the 500 c. p. leucodescent lamp. If I could have had him resume treatment, I am sure a complete cure would have resulted.

I have treated a number of other cases similar to those reported, and have not met with a single failure. For lumbago and torticollis this light-treatment is a sure and sovereign remedy. Wm. B. Gambrill.

Ellicott City, Md.

A "SIGN" OF SCARLET FEVER

C. Pastia (noted in *Pediatrics*, May, 1911) describes a sign which he considers of value in the diagnosis of atypical cases of scarlet-fever. It consists of a continuous linear eruption localized in the folds of flexion of the elbows. These lines are at first of a rose color, then become a deep red, and usually assume an ecchymotic appearance. The eruption may take the form of a single line, but is usually multiple, two to four lines being present, and between them the ordinary eruption of scarlet-fever may be observed. The sign appears at the beginning of the eruptive period and persists to its close and is then replaced by a linear pigmentation which is visible for some time.

The presence of this linear eruption, or the pigmentation which succeeds it, should give rise to the suspicion of scarlet-fever, even when the eruption is scanty on other parts of the body or has already faded. A similar condition may occasionally occur about the axilla, but is less marked and of short duration. This sign was found in 94 percent of the cases of scarlet-fever in the wards of M. Grosovici, of Bucharest, as well as in a large number of cases in Paris, but it was absent in measles and various conditions simulating scarlet-fever.

DOES CHROMIUM SULPHATE ACT AS A PURGATIVE

I notice Dr. Burnett's article in The American Journal of Clinical Medicine for January. I believe that the purgative action of chromium sulphate in such small doses, as he observed it, must be somewhat psychic. It is given in very large doses, sometimes, and without any purgative action noticeable. I usually give 16 to 32 grains daily, and have seen no cathartic effect.

Frequently I have given remedies without any known action on the intestines, and they have provoked purgation. On one occasion a lady was taking acetanilid and sodium bicarbonate for neuralgia on my prescription. On the third day a messenger came to say that the medicine was "acting too free," and he wanted to know what to do. A few moments' reflection, considering the patient's neurotic condition, and I answered: "That's all right; as soon as the bowels are thoroughly emptied the purging will all stop, and the remedy will keep the bowels just right."

And it did.

I am sure I could recall many such cases.

Clifton, Tenn. R. H. Strickland.

SAVINGS AND SUMMER HOMES

A great deal has been said in the journals about the many schemes by which

the doctor is induced to part with his hard-earned dollars in exchange for "triumphs" of the engravers' art which do not represent real values to the buyer. "Over the hills lies Italy," and the gold at the foot of the rainbow is always just a little beyond our reach. But just at our feet lie opportunities for investment that we may see and appreciate ourselves, if we but will.

Most advisers take the safe ground of suggesting savings' banks or insurance, perhaps mortgages. Insurance companies pay about a third of their premiums back to the insured, another third goes for expenses, including the man who induces you to be insured, and out of the rest accumulate a reserve fund of such magnitude that its control threatens the independence of the business world.

Banks pay about 3 percent to you; lend your money to somebody else at 6 percent, and that man uses it in business so as to pay this and make a fortune besides. Banks thrive on their share, as you may know if you attempt to buy a few shares of their stock. But it is the man who uses the money actively who really makes it grow. Bank and depositor depend on him for their share and get a little of the proceeds of his brains. Reminds one of the man who wrapped his talent away in a napkin, doesn't it?

Doctor, haven't you some brains of your own? Must you rely on the bank's selection of somebody who has some? If the possession of business-brain enables the man to pay you and the bank a share, why not cultivate your own business-sense and make your money earn for your ownself?

I am trying to do this.

For years I have been looking for a summer home. I wanted a place facing the water, well covered with trees for shade and fuel, far enough north to be cool and yet within reach of Chicago so that I could be with my family for week-ends without too much cost and time; and yet not too costly for a poor man. I was figuring on a tract in northern Wisconsin, when a friend told me he had bought a lot near Muskegon that filled the requirements. It faced Lake Michigan a short distance below that city, was covered with pines, oaks, beech and maple large enough for building purposes, the bathing beach was ideal, and there were no mosquitoes. A round-trip on the steamer cost $2.50, and during the summer there were eleven steamers a week. One leaves Chicago at 1 p. m. Saturday and arriving at Muskegon at 7 that evening, departing Sunday at that hour and reaching Chicago about 6 a. m. Monday.

Those who do not care for steamer travel can go direct by the Pere Marquette railway. The price of lots ranges from $50 to $250, each affording plenty of space for a cottage. Those who were buying the lots were "our sort"; and there is a "gentlemen's agreement" that nobody objectionable shall be admitted, no liquor allowed to be sold or any immorality permitted on the tract.

There are no snakes or other nuisances about. The beach is hard sand, and after deepening to about five feet the water shelves on a bar up to about half this; and a second bar extends out beyond this; so that, if a timid bather were to get out too far, he finds safety by going still farther. There is plenty of good, pure cold water to be had by driving a well about thirty feet down.

Nature has done her part. Dr. Evans says that the typhoid fever prevailing here every fall is brought back to the city from summer resorts. We obviate such perils by agreeing each to adopt a sanitary system of disposing of sewage and garbage—using the Lumsden toilet for the former, by which every trace of sewage is kept out of the soil and away from the wells; and burning this sewage. By the free use of traps we prevent multiplication of flies. So we purpose to enjoy the one sanatory summer resort near Chicago as a place where we can send our families for the hot season, and be with them Sundays, at the lowest possible cost. How much?

My lot, facing the lake, 50 feet by 408, stands me at $250; my cottage, 10 by 16, with kitchen 8 by 8, and porches, cost, with carpenter's wages, $225; the well, my half, $17.50; furniture, the cast-offs from the city home. Total, $492.50.

The preceding summer my account stood:

Wife and daughter, at Mackinac Island, 12 weeks	$600.00
Fare, three persons	75.00
	$675.00
	492.50
Balance in favor of new home	$182.50

In addition, a property which I could sell today for more than it cost.

Besides, I can build for $350 two cottages on the beach, at the foot of the sand hill on which my cottage stands, which I can rent for $100 a summer or sell at a good profit; and on the rear of my lot two more; still leaving me over 200 feet in depth for my own use.

At Macatawa I am told that a lot 25 by 75 feet recently sold, unimproved, for $1800. I am in no hurry to sell. Some months ago William E. Curtis, in one of his letters to the *Record-Herald*, stated that the entire southern shore of Lake Erie, from Buffalo to Toledo, had been taken up by wealthy men of the lake cities for summer homes. The west coast of Michigan to Milwaukee is occupied and costly. Inland lakes are too hot. Below Muskegon it is hard to find a shore property that is well wooded, and north of that the lake fares rise.

I believe that at present prices this Muskegon property is a good investment to anybody who wishes such a summer home, and is desirous of a reasonable increase of values as the years go by.

WILLIAM F. WAUGH.

Chicago, Ill.

HYGIENIC PROPHYLAXIS OF ECLAMPSIA

In the Maternity Clinic in Bologna, Italy, hardly ever the opportunity presents itself for observing a case of eclampsia; in fact, since January, 1896, when Prof. L. Bordé assumed the direction of the institution, until the close of the year 1909, only 3 cases have occurred. This is a very small number, considering that during this period 1833 women were confined in that institution, 63 of whom showed albumin in the urine. Of the 3 eclamptic patients, 1 died, the other 2 recovered.

Doctors Silvio Tassinari and Attalo Muggia (*Bulletino delle Scienze Mediche*, 1911, January) have investigated the causes of this absence of eclampsia in the Bologna Maternity Clinic. Their conclusion is expressed, very decidedly, to the effect that the remarkably low percentage of 1.63 eclamptic patients and 3.59 with albumin in the urine in each 100 patients is due solely to the régime to which the patients are subjected, and which constitutes the actual prophylactic treatment of autointoxication.

From the date of their admission, which is usually some time before confinement, the pregnant women are in a most perfect state of quiet, unharrassed by any brusque disturbances, almost without any care. Although they are separated from the world, they enjoy the most perfect liberty of moving around in the large gardens of the institution, where they breathe pure air and enjoy the necessary exercise. Attention to personal hygiene is assured by the patients being obliged to bathe frequently and to wear clothing which is adapted to their needs. The food is simple, but abundant. The functions of the intestines and of the kidneys are the particular objects of continuous medical supervision.

These extremely simple measures remove in part the danger of eclampsia and at least prepare the patient for the struggle against the danger, should it be present. The proof is found in an examination into the three cases of eclampsia which have been observed. In each one of these the convulsions appeared without prodromata. One recovered readily. The second case was more serious. In the one proving fatal, recovery was an impossibility, because of serious organic lesions, particularly of the kidneys—hyperplasia, ectopia, chronic nephritis.

The presentation of the authors shows how very necessary is the medical supervision of pregnant women. The protection which they may enjoy is diminished,

and in fact reduced to *nil* if the women are admitted to the hospital only at a very advanced stage of pregnancy, and if the sudden onset of eclampsia occurs without any prodromata. It is in those hospitals to which parturient women are taken as emergency cases that eclampsia, for manifest reasons, can be observed with particular frequency.—Translated, by H. J. A., from *Paris Médical.*

Boiled down, this régime might be stated as follows: "Clean out, clean up, and keep clean." Note that "the functions of the intestines and of the kidneys" were the objects of special solicitude.

EUTHANASIA BY THE USE OF DRUGS

The attention of the public has recently been drawn to the Florida community of Shakers, through the death of one of the sisters by chloroform administered with the intent to relieve her intense suffering by a painless, peaceful death. The lines between the different opinions as to the justification of this act are as sharply drawn as were those elicited by Dr. Robinson's masterly address on prevention of conception. And having thus given my endorsement to his theory, I will first digress and drop a word just here in explanation of my opinion.

It all resolves itself—to my mind—into the question of either the continuance of the work of the abortionist or else a comparatively harmless method of driving this excrescence out of business by rendering his existence a superfluity. There need be no general publication of Dr. Robinson's method (which more than one physician thoroughly understands), but I have had occasion to advise in this matter, in the course of my practice, and expect to continue to do so to the end of the chapter. There might be much more to be said, but I have started out on another subject, and so will not sidetrack myself. Only I will invite crucifixion by putting forth here the suggestion that, in view of the quality of individuals with which the earth (at any rate, this country) is being populated—especially by the foreign element—it might be well for the world if the further propagation of the species were to cease for a space of forty years.

Well, to return to my subject. There has not yet been time for the pronunciamentos of the medical journals. The daily press, however, teems with communications, and the utterances of the clergy (as a rule the class least capable of forming an opinion on the subject) have been extensively invited. This may be rank heresy, but the fact is that the truth concerning death and the hereafter has been terribly befogged by the clergy—and don't forget that this is the utterance of a churchman and an old man of seventy-four years.

There is, and will be for years to come, a dread of any means taken to shorten human life, unless the state sees fit to strangle a man or put him in the electric chair. This may be well, for murder is a human trait that calls for control, and whether done with the highwayman's bludgeon or by the slower, more painful process of starvation by forcing the necessaries of life up out of the reach of the people does not signify. They are both the same thing, only we call one a crime and the other a business transaction. Anarchy, you say? Well, "make the most of it."

The idea of deathbed repentance has colored the thought of the people, and many believe that the very last breath drawn by man may bring him salvation; practically the idea that the Divine mercy (if that, and not the *inner character* built up by the desires and acts of life, is what shapes a man's destiny) finds its limit at the border-line of earth-life. But some are now questioning whether that idea is sound.

But granting for a moment that a man is lost who dies without extreme unction or the intervention of the clergyman, then whatever the agony of the process of dissolution, it is a crime to interfere to assuage the pain. I remember one patient who died of locomotor ataxia, whose screams could be heard all over the neighborhood. I questioned a fellow practitioner whether it were not justifiable to do something to end the torture, and he was decided in

his negative. On my way to the patient's house I met another friend and I asked him. This one said, "I should put him under hypodermics of morphine, and keep him there to the end." I asked him what was the difference between that and a chloroform-ending of the whole struggle, and the reply was, "No difference, only the public prejudice." I went to work with the morphine and it worked for a while, but before the sufferer passed out I had to resort to the use of a power which was taught me by an old man—an eclectic—a power he had learned in Tartary; and the patient went out peacefully.

Now, the old conception, that death is a calamity—a curse because of the "fall"—and that it is the end of the man, is slowly passing away. But that some of that notion still remains is certain. Look at the gloomy character of our funerals, so frightfully mournful that many people will not, *can not*, attend such obsequies. But if death is an end of things, there is a reason for the gloom that hedges it about.

But is it? I am going now to plunge into mystic suggestion and assume that after all—real as this life is to the outer senses—it is but an embryonic condition. As the inception of life is in the unpenetrated darkness of the womb, so the boundless wisdom of the Almighty Father has decreed that an earthly existence (perhaps more than one) is a necessary incident in the development of the spirit, or soul—call it by any name you please. And if in natural parturition, conditions may exist that make intervention in the process not only advisable but a necessary duty, may not the same conditions exist when the time comes for the birth of the spirit into the unseen world? Who knows how closely the material meshes may have bound the soul, so that its sufferings in its attempt to free itself are far more agonizing than any pains the body can know? "But," says one, "you don't know anything about this." Speak for yourself, my friend; there may be some things that *are so*, only *you* don't know it.

The things that are unseen are plainly understood through the things that are made. It may be a suggestive fact that that Florida community of little-known, still less understood, people of the simple life have been the means of starting this question of euthanasia, which is certain to become a momentous problem to the medical profession. The one dubitable thing about it all, is how to regulate it wisely.

Last week a boy was killed by the explosion of a dynamite cartridge. It tore away the front of his body so that stomach and intestines hung out. He was taken to the hospital and kept alive for some two hours, all the while in intense suffering. Was it for the sake of the experiment (like a vivisection) or honest conviction of the doctors, to maintain that to hold the boy in life as long as possible was a duty?

Some old superstitions die very hard, especially if they were originated or fostered by theologians. And they show their teeth to the last. One of them is that there are things which we are not to know—the theologians arrogate to themselves what those prohibited things may be; and all the while stands confronting them the declaration of The Master as chronicled in Matthew x: 26. And there again is His saying as presented in Luke x: 21. Not that this problem has not before this confronted the practician, like the angel did Balaam, but I do not know that anyone of the profession has ever started the question. It has remained for these simple, honest-hearted people—who thoroughly understand the art of minding their own business—to raise an issue that will not easily be packed out of sight.

I wonder whether any of the number who are going to be shocked at this act will take up the argument that I heard a clergyman make many years ago. The subject was the use of ether in parturition. This infallible exponent of the Divine Will insisted that it was flying in the face of God, and in support of his claim quoted Genesis iii: 16 (I give the literal translation): "Unto the woman He (Jehovah of Elohim) said, 'To multiply *I* [italic mine] will multiply thy pain and thy conception; in pain thou shalt bear sons.'" And from this the old orthodox parson reasoned

that to attempt to assuage the pain of a woman in the pangs of childbirth was a heinous sin.

Much as I deplore the stigma that must necessarily fall on the Shaker fraternity, I feel a sort of satisfaction that the issue, which must come some time, should be precipitated by them—for their genuine honesty and moral worth is beyond question. Two of my daughters went to the family in Canterbury, N. H., twenty years ago, for their health, and chose the life. I have made frequent visits of a week or more at their home, and I know these people. Their honest, upright character, their reputation as a God-fearing people, cannot be impeached. This was no act for the sake of sensation—it was simply a manifestation of tender love and mercy.

But how shall the profession meet this question? The world waits with interest for the answer. It belongs to the medical profession as much as the question of surgical interference does to every honest physician. It is not a question of morals or of theology. May we have the ability to deal wisely with the issue when in the nature of things it must inevitably confront us.

J. R. P.

——, Massachusetts.

HORSERADISH AS A NEURALGIA CURE

A patient of mine had a severe attack of neuralgia of the fifth nerve, with intense pain in the eyeball; pain so intense that he could not rest, walked the floor constantly in a darkened room, holding his hand to the forehead. This pain persisted for half a day. Finally his wife procured some horseradish leaves, wilted them and applied them to the painful area. Complete relief followed this application within less than ten minutes.

What active principles reside in horseradish? Is it not possible that it contains something as useful medicinally as menthol? This case seemed to me peculiarly striking. Aconite, we know, is valuable when locally applied in neuralgia, and this drug resembles horseradish so much in its physical appearance that several deaths have occurred through mistake. I should be glad to have your comments upon this case.

J. Gibson Donogh.

Brookville, Ind.

[Horse-radish, as we all know, formerly was extensively used in medicine, although it is not much employed in the United States at present. In the British Pharmacopeia, the compound spirit of horseradish (spiritus armoraciæ compositus) is official. The root is the part generally employed, though the leaves, I believe, contain the same principles in smaller quantity.

Horseradish belongs to the Cruciferæ, or Mustard Family, the active principle being an oil, present in the root to the extent of about 0.05 percent. This oil is almost identical with the volatile oil of mustard, having practically the same composition, but also differing from it slightly in odor. As a counterirritant, its action duplicates that of oil of mustard when locally applied, though it is somewhat less irritant. It is employed locally to relieve toothache and neuralgia; also to cure relaxed states of the mucous membrane, relieving hoarseness caused by the congestion of the larynx—for the latter purpose being employed in the form of a strong infusion or gargle. Horseradish was formerly used internally as a remedy for scurvy.

Aconitine has long been used in the treatment of neuralgia, and it certainly is a valuable remedy for that purpose. Probably the oleate of aconitine of The National Formulary containing 2 percent crystallized aconitine, is the best form to apply this remedy locally for this purpose. The physician will, of course, give proper attention to the underlying condition, which can usually be discovered by a close analysis of the patient's symptoms.

While treatment, in cases of neuralgia, must be varied according to conditions present, in practically every case benefit will follow cleaning and disinfecting of the alimentary canal—and this must be exceedingly thorough. Following this, put the patient upon a tonic treatment of arsenic, preferably in the form of the arsenates of iron, quinine, and strychnine,

with nuclein. If the nutrition is poor, as is generally the case, select a generous but simple diet, with milk, eggs, cereals, and good beef as staples. Watch carefully all the time that intestinal autoxemia does not develop.

For internal treatment of the attack, rely upon such remedies as aconitine, atropine, strychnine arsenate, and glonoin, these different drugs being selected and combined according to the requirements of the individual case.—Ed.]

A CHEMIST'S VIEW OF THE ALKALOIDS

For the past two years my work has been in the alkaloidal branch of organic chemistry, and during this period I have learned of the difficulties that have been encountered in introducing this class of remedies to the medical profession. I cannot understand this opposition.

In the first place, the alkaloids represent, in most cases in their highest form of purity, the active therapeutic constituents of the drug. In many cases they represent its full therapeutic value. Therefore, the question arose, how any doctor who valued the purity of his medicines could prescribe tinctures, fluid extracts, or other extracts of drugs when the chemically pure and therapeutically active alkaloids or glucosides are available? There seemed to me to be no answer to this question.

In my previous experience with the organic medicinals I had found that the doctor always desired a chemically pure product. For example, if his phenacetin was pink colored, or if his phenolsulphonic salts were contaminated with traces of free phenol he objected strongly. Yet this same doctor apparently preferred to prescribe a wine of colchicum, containing far more variable amounts of the principle desired than did his discolored phenacetin or sulphocarbolates. Furthermore, the impurities, in the case of the galenicals, are far more injurious to the system than some of the objectionable colors found in his synthetics, as for instance the great amounts of tannin in uva ursi, digitalis, and so forth.

Then, again, it has always seemed to me that, when a doctor prescribed a medicine for a patient, he did so for the action of the specific remedy prescribed. He must be sure that his prescription contains the therapeutically active drug. Yet I soon learned of the vast numbers of doctors who would prescribe tincture of aconite in preference to the pure aconitine. This is rather surprising when one considers that a large percentage of the tinctures of aconite on the market contain little or no aconitine and, hence, have little or no therapeutic value.

I learned of the doctors who would, in cases of heart trouble, prescribe an infusion of digitalis. This was indeed startling, when my chemical experience had shown me that much of the digitalis on the market contained little of the therapeutically active glucosides, and, further, that the infusion would retain its therapeutic value, if it ever was present, for only six or eight days at the longest. Yet these same doctors had at their disposal the pure glucosides, always constant in their action, not deteriorating with age, and always giving a definite result.

Another astounding feature was that these same doctors had long ago learned to prescribe morphine and quinine salts in preference to the galenicals. Yet they were not consistent in prescribing the other alkaloids and the glucosides in place of the variable galenicals, when experience has shown that these also just as fully represent the full therapeutic value of the drug.

It really appears as though medicine had contented itself with the advance it had made when it adopted the morphine and quinine and had refused to be further fortified by the aid of the rest of the active principles.

Medicine, admittedly, is not an exact science in the sense that chemistry is, and it is only with the help of the truths such as Emil Fischer, Ehrlich and his school are disclosing that it eventually may become such. Yet these truths will be of no avail if exact remedies are not substituted for the inaccurate ones now in vogue. Years ago the eminent Cl. Bernard said: "The first condition for the progress of medicine is the use of substances having an exact composition, capable of an exact dosage,

and with which it is possible to measure the effects produced." Now I ask the doctor, is this not the case with the alkaloids and active principles?

If the doctor who prescribes the galenicals could visit my laboratory and see the impurities it is necessary for me to remove in order to secure the pure active principle, he would become an immediate convert. If this same doctor could see how large is the percentage of these impurities compared with the amount of pure principle contained, as well as their slimy, disagreeable, nauseating and disgusting nature, I am positive that he would never again prescribe another galenical. Furthermore, I am sure that if he could see the vast amounts of drugs that do not contain the supposedly present active principle, he could account for the many cases that did not respond to the treatment he treated with this galenicals, and which failures he had attributed to other causes. He would have thoroughly impressed on him that the drugs themselves, and therefore the galenicals made by a uniform method therefrom, vary widely in their active-principle content, and that therefore their use in medicine for exact effects is absolutely impossible.

F. P. SUMMERS.

Chicago, Ill.

AN APOLOGY FOR CHEWING GUM

Dr. Le Grand Kerr speaks in *American Medicine* of the use of chewing gum as a mouth cleanser, especially in children ill with infectious diseases. He declares that the important result of keeping the mouth clean is much better obtained by permitting children to chew gum. This is attractive to the children and through its use, at stated intervals, the little patient is led to do effectively two things that are most important: First, to stimulate the flow of saliva; and, second, to secure a beneficial movement of the tongue, which is a most efficient cleanser through its mechanical action alone.

This method has been tried for months by Dr. Kerr in cases of typhoid fever, scarlet-fever, measles, diphtheria, and always with benefit. Dr. Kerr very properly points out that a fresh piece of gum must be used every time, and the old piece destroyed.

Ordinarily the use of chewing gum is considered rather ill-bred, and is severely frowned down by purists in manners. It was with a good deal of interest therefore, that the present writer listened to an apology for the habit of chewing gum, on occasion, at a meeting of the North Shore Branch of the Chicago Medical Society several months ago, when Dr. G. B. Young, the present Health Commissioner of Chicago, told how he used this as a means of preventing sordes formation in the mouths of his typhoid-fever patients in the Marine Hospital.

The method is so simple and at the same time efficient that it is strange that it has not been in general use all these years. Aside from assisting materially in keeping the mouths of the patients clean, it also gives the latter something to do, and relieves the killing tedium of the sick-bed. We have spoken of this legitimate use of chewing gum before, and are glad to see Dr. Kerr's paper on the same subject.

ROSSO'S TYPHOID-FEVER TEST

According to Dr. F. W. Rolph (*Medical Record*, Aug. 19, 1911) this test was described by Rosso, in 1905, in the *Riforma Medica*, as giving a possible reaction in typhoid fever, measles, smallpox, and in some cases of tuberculosis. The method is as follows:

To 4 or 5 Cc. of the patient's urine add four drops of a 0.1 per cent aqueous solution of methylene blue. Mix well and examine against the light. A mint or mineral green coloration is positive, whereas any bluish tinge renders the test negative. Rosso reported the reaction as being unaffected by boiling or by the ingestion of such drugs as calomel, quinine, salol or caffeine, and also pointed out that the gradual resumption of the bluish tinge, as the patient advanced in the disease, was a very favorable prognostic sign.

One disadvantage of the test is, that in the presence of bilirubin in the urine the color reaction differs so slightly from the

typical green of Rosso's test that differentiation is not possible.

The test has been used in our own physiological laboratory and has been found of decided value, especially early in the disease, before the Widal test could be secured.

RELIEF OF VOMITING OF PREGNANCY

Picking up the January, 1912, number of CLINICAL MEDICINE, I notice, on page 93, an account of the "Vomiting of Pregnancy Relieved by Cervical Treatment" by Dr. Wright with carbolic acid and iodine. I notice the doctor applied the solution to the inflamed *os*.

This reminds me of a similar case which, about thirty years ago, I treated with carbolic acid (full strength), with the aid of speculum and probe and a small pledget of cotton. This was applied about one-half inch within the cervix, only one application being made. It gave relief for the balance of the term.

This lady had had several children before, and always, from start to finish, became greatly emaciated, as a result of excessive vomiting. I have often checked false labor pains or threatened abortion by applications of iodine.

H. A. SMITH.

Sumner, Miss.

INGROWN TOE NAILS ONCE MORE

In his reply to my criticism of his operation to relieve ingrown toe-nail, it is apparent that Doctor Breakstone does not quite "get me." (December CLINICAL MEDICINE.) He was never more mistaken than in assuming that I am offering a "cheap substitute" for a radical operation or a temporary or palliative expedient. It is true, scraping of the nail's surface is cheap, but it is not less a simple, safe, and absolutely permanent and complete remedy. The task of occasionally scraping the nail with a few strokes of a knife-blade is no more irksome than it is to trim the end. I do not think the Doctor would advocate the removal of all the toe-nails because, if they grow too long, we cannot wear shoes and, hence, the nails must be trimmed from time to time—a procedure affording only temporary relief.

It is not at all necessary to scrape the nail "almost daily"; still, even if it were, the time consumed would be negligible. However, it need be done no oftener than the nails are trimmed, and there will result neither hypertrophy, nor necrosis, nor anything else, but a complete relief and perfect comfort.

I am glad Doctor Breakstone agrees with me that unnecessary operations are criminal. He doubtless knows that the other operations he refers to often are performed unnecessarily. Much might be said on this subject. Doctor Page, of Boston, goes so far as to declare that appendectomy should, by law, be made a criminal operation. In discussing his own method of external treatment of appendicitis with a friend (a prominent surgeon of Boston), the latter said: "Why should I bother myself with the hydrotherapeutic treatment of appendicitis, when I get from five hundred to one thousand dollars to operate and people are crazy to be cut?" What do you conscientious practitioners think of that?

I do not think we should waste our time trying to determine how much of the bodily machinery may be dispensed with without producing death. Nature has given us no surplus of mechanism, and no surgeon is wise enough to improve upon good old Dame Nature.

To change the subject, to consider the Iowa doctor's success in killing a baby with arsenic, it seems to me we should not experiment so much with virulent poisons upon the stomachs of tender infants. When these little things are sick look to the bowels—that is usually the seat of the trouble.

If the system is poisoned, get the organs of elimination active, not neglecting the skin. The enema is safer, more prompt, and more effective than drugs, and does not disturb the system. Don't waste precious time experimenting with dangerous drugs, especially on infants. Do something rational to relieve the system of toxins, instead of loading it with more poisonous substances and thus obscuring

the symptoms. Drugs are poisons, and should be used with much more care and intelligence than too often is the case.

Oftener than is usually suspected, illness is proximately caused by clogging of the system, due to the arresting of the eliminative processes; and the "first aid" should consist in thoroughly evacuating the colon.

E. S. Frazier.

Aurora, Ill.

EXOPHTHALMIC GOITER AND CERVICAL LUXATIONS

I regret that a few errors occurred in my article on "Exophthalmic Goiter and Cervical Luxations," in the October number of Clinical Medicine. Dr. DeWitt's article, referred to, appeared in the July number of *The Medical Summary*, not in *American Medicine*, as stated. In it, he reports three cases, and not four. The Doctor tells me he omitted the fourth case because he could not get a sufficiently complete record of it.

I might add that in my case pilocarpine and other symptom-remedies have frequently been used "to effect," but none of them had any influence on the goiter nor checked the tendency to luxations. I omitted mention of these as not essential. Several years ago I considered the advisability of putting this patient on berberine, to check the luxations; but after studying up the literature, in my possession, on this alkaloid, I decided that it was not indicated here and so did not try it.

The patient lived for a year at an altitude of over 4200 feet, which had no effect whatever on the disease. Luxations continued throughout the winter at this altitude in Oregon.

As published, the article makes it appear that no luxations have occurred for several months, whereas they have been recurring irregularly ever since the article was sent you—by mistake—by my wife.

The patient's sexual habits have been investigated, but nothing abnormal could be discovered, except that libido appeared to be abolished by the luxations. It was normal in the intervals. I did not mention this, thinking it threw no light on the subject.

It seems clear that neither temperature, nor anything in the exercise of the sexual functions, can be the unknown cause of the luxations, although high temperature, childbearing, and any circumstances which would temporarily reduce the nervous force or vital resistance would naturally be a contributing cause. But the luxations have occurred during two winters as well as several summers, at altitudes varying from sea-level to 4200 feet elevation. They have occurred during all phases of her sexual life.

I am sorry these mistakes occurred but do not think I should be blamed for them, as I mentioned nearly all of them in my former letters and asked you to return the article to me—in proof—for correction.

Chas. F. Morrison.

Apopka, Fla.

[We take all the blame. In handling a considerable correspondence, it is very "easy" to omit some of the supplementary matter contained in our friends' letters. However, Dr. Morrison's letter should make everything clear. We are sorry we could not get it into print earlier. In this connection, please read the brief article by Dr. De Stone, which follows.—Ed.]

ANENT THE "SUSPENSION" TREATMENT

In print I have been called almost everything, from crank up to insane, hence, Doctor Morrison's mild little "irrational" (See December, 1911, Clinical Medicine, p. 1303) never touched me; but for fear someone else may be prevented from getting the good out of "Suspension," I feel an answer should be given him.

As to what whould satisfy him in regard to sufficient data upon which to base my claim I will state, that the first four years of my practice was spent in doing nursing under such men as Levi P. Lane (the best surgeon this Coast has produced), Dr. Plummer (his associate), Harry Sherman (children's hospital), and several others in the city of San Francisco. In San Diego I nursed under Wm. A. Edwards (four years first assistant to Dr. Osler in Johns Hopkins), not to mention others. Then I

opened parlors for massage and Swedish movement, with water, air, light, electric, and vibratory treatments, which I conducted for five years. Seventy-five thousand people flock to San Diego every fall, sufferers from every deformity and disease. I got my share of this business, averaging, during the last three years, ten patients personally treated daily by manipulation, the other work being done by assistants. I call these nine years of my eighteen on the turf as the most instructive of all my experience, and I believe I am entitled to be called a judge of what can be accomplished by manipulation and suspension.

Physiology bears out the statement that every muscle and ligament is normally in a state of tension. The effect of manipulating (correctly) a muscle or a ligament is, within certain bounds, always to restore it to normal. Normal ligaments or muscles hold the bones of any joint in correct position. I did not say that "stretching alone" would do this work, but that bringing tension on muscles and ligaments and manipulating them while so stretched would restore them to normal.

This, of course, presupposes a fair amount of knowledge as to how to work the parts to wake up the flagging nerve-power and cause blood to surge into them.

I have not gone over my lists of odd cases, but I can readily call to mind two cases of luxation of the elbow-joint, one of the knee, five of the ankle, and three of the shoulder. One patient, a banker's wife, in San Diego, could not raise her hand to her head without dislocating the shoulder. Some of the others were nearly as bad, and in each of these cases I effected cures. In each of these cases I either had an assistant stretch out the limb while I manipulated the parts, or I caused tension by giving them something to pull upon. I therefore see no reason why intelligent work, in connection with proper remedies for improving blood supply, would not cure Dr. Morrison's case.

The Doctor has read my article wrongly, or else, certainly, a cog has slipped in his logic; and if his "Missouri" proclivities are not also encumbered with prejudice so badly as to prevent him from trying this method, I am sure good results will follow.

In applying suspension with manipulation, one must recognize that we are not stretching a dead material, but rather a living aggregation of cells, all eager to receive that which will enable them to do the work for which they were intended, and, that, when given gradually increasing work and doing that which brings blood to the parts, nature will tend to return them to normal, in this case normal joint tension.

According to his statement of his case (October, 1911, p. 1108), the woman under discussion has been depleted of the natural salts of the tissues of the body by too rapid childbearing. Logically, all her tissues are thereby made flabby and relaxed; therefore, if the joints of any part are separated, all the tissues around that joint must have lost their contractile power.

F. G. De Stone.

San Francisco, Calif.

WANTED, BACK NUMBERS OF "THE ALKALOIDAL CLINIC"

The librarian of one of the medical colleges in Chicago desires the following numbers of The Alkaloidal Clinic, in order to complete his collection:

1893, Vol. I, Nos. 6 and 7.

1897, Vol. IV, No. 9.

1898, Vol. V, the entire volume.

1900, Vol. VII, No. 8.

If any of our readers possessing these numbers, or a part of them (if only one) are willing to part with them for the benefit of this college library, and will send the numbers to the librarian of this journal, their gift will be much appreciated.

Kindly address Dr. H. J. Achard, in care of The American Journal of Clinical Medicine.

TONSILLITIS

On page 89 of the January Clinical Medicine, Dr. Carrington writes instructively and entertainingly of follicular tonsillitis. As I have to deal quite frequently with this trouble in this latitude, any real good treatment is valuable. I am glad the

doctor writes upon such everyday socalled "little affairs." It takes all the little things to make up the sum total of life, and the doctor who is ready for these things is the man who is busiest, for they are always with us.

I have had my battle with this trouble, have seen it diagnosed diphtheria and a great parade made about it, but—I cure it with very little ado, and this is how I do it:

I have had Dr. Waugh's "Treatment of the Sick" for nine years, and I make use of my books. If you will look on page 122 you will find he says: "Take potassium chlorate, dr. 1; hydrochloric acid, drs. 1 1-2; Mix and add tincture chloride of iron, drs. 2, and water to make ozs. 4. Half a teaspoonful to a teaspoonful is to be taken every two to four hours. No water with or after it, but may be given before it is administered. This is death to membranes and exudates of all kinds.

I gave $5.00 for the book, but the formula has been worth a hundred times this to me. It *will* cure diphtheria, and is all you need in tonsillitis with the exception of calcium sulphide. In some forms of tonsillitis calcium sulphide is all that is needed, especially that form of simple inflammation arising from cold. My daughter has been troubled with this for years and has learned to know its approach. She goes to the calcium sulphide bottle and it "does the work" for the attack without any further ado.

M. G. Price.

Mosheim, Tenn.

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[There was an almost inexhaustible mine of useful information in that book—"Treatment of the Sick"—and all of it (and much more) is embodied in the latest edition, now known as the Waugh-Abbott "Text-Book of Alkaloidal Practice." In spite of the increased size the price is still $5.00.

The treatment outlined by Dr. Price is a good one, but in diphtheria, even "suspected" diphtheria, it is wise to give antitoxin *always*. The serum treatment is here to stay, and in other diseases beside diphtheria it is certainly making big progress. In all biologic medicine we are going forward by leaps and bounds. The up-to-date doctor must keep in touch with the times. He must know about serums, vaccines, and bacterins—understand the principles governing their use, so that he can employ them wisely. Right now we advise the family to "ask questions." If we can't answer them we'll pass them along to someone who can. Let's dig deeper into this rich field.

Dr. Price doesn't praise calcium sulphide a bit too much. It's a great drug—and I am coming to realize that more every day I live.—Ed.]

A UNIQUE LITERARY WORK

Dr. F. Pollard, of Fresno, California, writes us that during his twenty years of practice he has collected nearly seven thousand clippings, which he has filed in such a way as to make them available for constant reference, and he intends carefully to select the best of these suggestions and to print them, so as to make them available for other physicians. He offers a pamphlet containing six thousand words for five cents, just to start the work going. Dr. Pollard is anxious to get into touch with other readers of Clinical Medicine who have made similar collections. His address is No. 337 Blackstone Ave., Fresno, California.

AN EXPERIENCE WITH ECZEMA

One very noticeable fact, as undoubtedly we all have observed, is the scant attention given in medical literature to the subject of dermatology. Simply because people do not, for instance, die of eczema, this disease is dealt with merely in a most perfunctory manner. Well do I remember from my student days a certain college song, set to the tune of an old hymn, to the effect that "in Heaven above, where all is love, there'll be no eczema there." No one, of course, has any inclination to crack jokes about ailments that frequently prove fatal; but since having had in my own family eczema of the most irritating form, I have come to the conclusion that by all means there ought to be a more general discussion of this frequently intensely painful

malady, and though I do not pretend to know so very much about it, still it is possible that some of THE CLINIC "family" may be interested in what I have learned from this recent experience.

In the textbooks of dermatology that I studied while attending the university as a medical student, in the early nineties, eczema was classified as an inflammatory disease; of late, however, there has been some hint in medical literature as to its parasitic origin. At any rate, there is in the profession a tendency to classify skin diseases all in a bunch and to prescribe for internal administration, indiscriminately, arsenic and pilocarpine, and for external application some form of ointment, since lotions usually only make matters worse. Aside from this little simple routine practice, the attention of the medical profession seems to be practically diverted entirely into different channels, leaving the intense itching and burning to be dealt with entirely by experimental treatment.

It must be borne in mind that the skin is one of the organs of elimination, and should poisons be habitually absorbed into the system that the liver is unable to destroy—of course, in conjunction with the kidneys and bowels—the skin will be called into play for the removal of these noxious substances. Then, should these toxins be of an intensely irritating character or the individual be extra sensitive, it is not at all strange if sometimes extreme and tender forms of rash on the skin are the result. As arsenic is largely eliminated by the skin, it is supposed to restore its normal tone. However, sometimes sedation and not stimulation is what the diseased skin requires, and, on this account, even though I have sometimes been a guilty party myself, I wish to caution against the indiscriminate dosing with arsenic in skin disease.

During the short time that we have lived in Pueblo, we have had, all along, one trouble after another directly traceable to the impure drinking water with which we had to put up. At first we were afraid to use the city water, which is obtained from the Arkansas River, on account of the vast amount of refuse which the stamping mills up the river were continually emptying into this stream. So we used one of the mineral waters that came from springs in this city and were delivered in five-gallon receptacles recklessly carted through the dusty streets and which, consequently, were heavily laden with all manner of germs. After using the mineral water a few days, my wife began having a series of boils and finally an ulcerated tooth. After using this water for two months, we felt that river water boiled would be preferable, Into this, in warm weather, we put a little ice, but as the weather became cooler, we omitted the ice. Then, when upon discontinuing the mineral water my wife developed no more boils, we concluded that the trouble from the drinking water was at an end.

Then, along about the middle of November, in response to a subpœna, I had to go to Carson City, Nevada, to be away ten days. Returning I found my better half suffering from an acute indigestion, which at first we attributed to milk, but later concluded that the drinking water was the cause; for the day following Thanksgiving she was taken down with the most intense itching and burning on her back, the rash coming out some days later. Nor did I, myself, entirely escape an attack of eczema —and milk is not a part of my diet.

Following the usual routine, I put my wife on arsenic sulphide, 1-64 grain four times a day, which dose, at the suggestion of a brother practitioner, I doubled. In connection with it, I pushed echinacea and pilocarpine, taking care to guard against constipation. At the start I applied, among others, a solution of equal parts of camphor, chloral, and carbolic acid in glycerin. At first this was well diluted with water, but finally applied full strength. For a while my patient thought that she could use with comfort a certain proprietary preparation containing sulphur, resorcin and, perhaps, oil of cade, but she finally had to discard that as being too irritating. Zinc oxide ointment fairly made her wild. Trying one kind of ointment after another was simply in the way of experimentation without satisfactory results.

As to the internal treatment, arsenic only made a bad matter worse. Pilocarpine,

instead of having the expected effect on the affected area, simply set up a troublesome salivation. Iron apparently was indicated, and perhaps would have been so in the ordinary cases of eczema, but it was distinctly contraindicated here, owing to the torpid condition of the liver. As iron is excreted in the bile, to give it here would only be adding that much extra burden upon the already enfeebled organ. The kidneys, too, were sluggish, judging from the unusual craving for tomatoes, oranges, and lemons. The logical internal treatment for this was to gratify that taste and sometimes to stimulate the kidneys with arbutin (gr. 1 every hour) and to administer, before meals, from 1-2 to 1 grain of juglandin and, after meals, the same amount of chionanthin; besides, as needed, adding podophyllin and bilein, but omitting calomel, as the latter would interfere with the ingestion of the acid foods so ardently craved.

All of a sudden the thought flashed across my mind, why not try carbenzol as a local application, and, if too strong, to reduce it with olive oil. This line of treatment, both internal and external, proved most satisfactory and had I thought of it only sooner, much suffering would have been avoided. Trusting that others may be benefited by my experience and hoping that more concerning the treatment of eczema appear in medical literature I present these hints.

Frank D. Patterson.

Pueblo, Colo.

THIS IS MUSIC ! PRESCRIPTION NONSENSE

Dear Doctor Abbott:—It seems like "taking owls to Athens," as the old Greeks use to say, to tell you how much I enjoy The American Journal of Clinical Medicine. I can hardly wait from month to month for the next issue, and every article in it is read through and through and reread and digested. You have heard this story from others; nevertheless it is true, and comes from inner conviction.

What I wish to say especially in this letter is to congratulate you on your last January (1912) number, especially your article on "Modern Tendencies in American Therapeutics," which I think sounds the keynote for the coming year in more than one way. In connection with it, I wish to call your attention to the article in the January 6, number of the *Journal of the American Medical Association* on "Prescription Nonsense," in which the alkaloidal principles are taught by the writer, whether knowingly or not I am not prepared to say; but in its tenor, this article might just as well be a product of your journal, and not of one which still advocates the old galenicals.

I am an old and experienced druggist myself and know, therefore, the many traps a doctor is often caught in, not through the dishonesty or unwillingness of the dispenser, but through the inefficiency and unreliability of the preparations used.

I wish you all success for this year, which (in spite of the cold weather and snow, which has us now for three days without mail and over a week without any freight whatsoever, though on the mainline of the Santa Fe) will prove a record breaker in crops, consequently in money and better collections.

Very truly yours,

C. L. Katz.

Syracuse, Kans.

MORE MUSIC—GOOD, TOO !

I am something of a reader. If anything in current medical literature escapes me, I don't know it. Let me place my good right hand over my heart and swear to you that The American Journal of Clinical Medicine is the best thing that the delivery man drops at my door.

I think I know the wishes of the doctors as well as the average man and I tell you that you have sounded the keynote in medical journalism. There was a medical journal started years ago by a namesake of mine, but for some reasons it did not survive. That journal, had it had the financial backing, would have revolutionized medical journalism! You are along the same lines, only more so.

That article by Moss is a gem. Ditto that one (and all those that have preceded

it) by Breakstone. Of course Beverly Robinson is always there. Not the least valuable part of the journal to me is the editorial work. I don't know who writes them, but whoever it is has the faculty of expressing himself in pungent English.

CHARLES S. MOODY.

Sandpoint, Idaho.

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[We have received many splendid letters of congratulation and encouragement, inspired by the January number of CLINICAL MEDICINE. Everybody says the journal is doing a great work and the general opinion seems to be pretty well expressed by Dr. Charles G. Purdy of New York City, who writes: "Every number of CLINICAL MEDICINE is splendid, but this last number is especially so. It seems to me that if you could send a copy to every physician not taking it, but in active practice, you would double your circulation. I take three other leading medical journals, and if I had to confine myself to one, it would be THE AMERICAN JOURNAL OF CLINICAL MEDICINE."

The subscription list of CLINICAL MEDICINE is growing rapidly, but not nearly as fast as it should. It's *our* journal—yours too. *Let's all of us help boom it for the next few months.* Talk about it to your medical friends. Tell them about the good things you see in it—the items that help and encourage you—put money in your pocket. Persuade them to subscribe. If you can afford it (surely you can) make a present of a year's subscription to one or more of your friends. Finally, *renew your own subscription promptly.* Maybe it's due now. Look it up. This should be our biggest and best year. Won't you help us make it so? Won't you help me—personally?—ED.]

"THE POOR MAN'S DOCTOR"

I like to be called "the poor man's doctor." If I could have my own way in such matters, I should go about healing the sick and relieving human woe, without money or pay to mar the beneficent service with avarice, or taint the heart with selfishness.

Helping Nature restore human health, replacing pain with comfort, encouraging those who can see no hope of recovery, and soothing the troubled spirit that is shrinking from the beckoning hand of Death should not be ranked with selling groceries or shoveling sand.

I have no sympathy with the doctor who can see nothing in his cases but the largest possible fee that it is possible to get.

One of the kindest things that a physician can do for a poor man is to make his "doctor bill" as small as he consistently can.

I do not like to work for the vulgar rich. The very fact that they are wealthy suggests that they have secured their excess possessions by extortion, legal robbery, or grinding oppression.

Those who amass riches by such methods have adamantine hearts and seared souls. They can not feel the sympathy which reaches across from one human heart to another with cords of love, nor shed a tear for anything but the loss of money.

They treat the kindly disposed physician as a menial who is eager to rob them, even as they have robbed others, and are totally incapable of expressing gratitude from their mercenary souls. Their possessions give them the ill-gotten power of imperious command, and they call and dismiss their physician as the fancier does his dog.

They are usually "fad-chasers" of the rankest order, feeding by their foolishness the graft of the swindling horde who hover around them like vultures around odoriferous carrion.

The deviations from regular medicine appeal to the freakish thoughts of their idle minds, and the unpleasant experiences which follow are jumbled with their lack of appreciation for kind acts and loving words.

I like to work for the poor man. His heart is a garden in which the flowers of gratitude, loving kindness, sympathy, and humility are cultivated into perfect growth by poverty, suffering and oppression.

He may not pay me with ready cash for my service, but he treats me like a friend who has an interest in his recovery.

He appreciates my ready response to his urgent call, not attributing my eagerness to motives of selfish greed.

He does not soon forget a physician's little incidental acts of true kindness, and on the inevitable mound that marks the doctor's last call unostentious flowers are strewed by the poor man's hand.

I like to be called "the POOR man's doctor."

A. D. HEARD.

Marshall, Minn.

THERAPEUTICS OF CALCIUM SALTS, AND THYROID INFLUENCE

Dr. G. J. King Martyn (Bath Clinical Society, *Lancet*, 1911, Feb. 25, p. 510) gave a résumé of the known physiologic effects of calcium on the tissues and blood and of the evidence of the regulation of calcium metabolism by the thyroid gland. The intolerance of iodides in myxedema, he suggested, was due, possibly, to the liberation of thyroid secretion into the cerebral circulation. He advanced the theory that sporadic goiter was due to compensatory hypertrophy of the thyroid gland to cope with added calcium metabolism induced by drinking certain limestone waters. The treatment of rheumatoid arthritis by thyroid extract was essentially the same as that by iodides.

Dr. King further pointed out that one of the benefits of codliver oil in rickets was due to its forming a soluble soap with calcium. As regards calcium increasing the coagulation of blood, clinical experience seemed to be contrary to recent experimental work. He instanced as morbid conditions in which he had found the administration of calcium beneficial: hemophilia, epistaxis, chronic sneezing, chilblains, certain headaches, orthostatic albuminuria, and Henoch's purpura. He pointed out the relation of strontium to calcium, and success with it where calcium salts had given no results, and ascribed the failure of calcium to produce benefit in some cases either to nonabsorption or to its not being given over sufficiently prolonged periods.

The question of calcium metabolism, the speaker said, was of great interest with regard to the Bath waters. In these, calcium was present only as the sulphate and carbonate, and only in small quantities. Hence it probably was not absorbed at all, or in such minute quantities as to do no harm. He had never seen thrombosis or other phenomena which might be due to calcium absorption occur during the drinking of these waters. If, however, excretion of calcium in the body were desired, iodides could be taken in connection with the mineral water; while, conversely, drinking these waters in conjunction was a valuable method of preventing iodism. He found the best preparations of calcium to be the lactate, the chloride, and the iodide, and mentioned a case of diplopism lasting twelve hours, and another of "dualism" occurring while the chloride was being taken, but which passed off without bad effects.

PUBLICATIONS OF THE DEPARTMENT OF AGRICULTURE

When we old men were boys, no publications that came to the house were more heartily welcomed than the bound volumes of Public Documents. They made such splendid scrap-books! To the best of our recollection, no human being was ever known to pay the slightest attention to the printed matter therein contained. This came to my mind while we were examining some Public Documents just received from the Department of Agriculture—the Tenth Report (1908) of the Field operations of the Bureau of Soils, with a case of maps accompanying.

There are 37 area surveys, from Maine to California, Dakota to Texas. These describe with careful detail the various soils, their relative values, and the crops best suited to them. What inestimable worth these publications possess for the man who feels the impulse, "back to the soil," and is thinking of securing his share of the earth before it is too late! Exactly what he needs, and not from the parties who have land to sell, but from the United States Government experts, who have no possible interest to lead them into enthusiasm or aught but the plain, unvarnished truth. And these data are to be had for the asking.

Besides this, the Department of Agriculture publishes a multitude of circulars, special reports, etc., of similar value. Do you contemplate going in for chickens, guinea-fowls, turkeys, ducks, pigs, sheep; cultivating peaches, cherries, apples, grapes, berries, mushrooms, drug plants, alfalfa, clover, onoins, beans? Do you want information about dry farming, irrigation, sandy soils, swamp lands, timber, or the many insect enemies of tree, plant, stock or man? Do you want records of condemnations under the Pure Food and Drugs Act, to know who are the adulterators and short-weight artists? All these subjects, and many more, are handled by the Government experts in that impartial manner that renders their statements trustworthy.

Every month comes a bulletin of the new publications, this to be had free, for the asking. There is also a catalog of these bulletins that is most valuable, as showing the work of previous years. I write this to let my brethren understand what valuable information is accessible and how to get it. If you feel disposed to take up such work don't bank on the interested statements of railroads or land agents but select your climate and your preferential phase of the production, and then see what Uncle Sam has to tell you of them. It would be rather provoking to find you had located an onion farm on a strip of soil altogether unfitted for that vegetable, when just across the river lay land exactly meeting your requirements, and for the same price. The infinite pains taken in working out the detail of these soil-maps is remarkable.

EDIBLE SNAILS

Among the memories of my childhood days, which were spent in Switzerland, there is one, occasionally and pleasantly dwelt on—pleasantly with reference to the tastes of my boyish younger self, and hence connected with something good to eat. I recall how I was carefully instructed by a kindhearted neighbor to search under the hedges for a certain kind of snails and to bring them to her. These snails she then prepared, and I well remember how we youngsters feasted upon them. This memory lay practically dormant until, some years ago, my attention was called to the edible snails which form a specialty in a French restaurant in this city and which I have enjoyed greatly in that place.

It was therefore of much interest to me to read in *The Dietetic and Hygienic Gazette*, for July, that these snails contain substances in their make-up which stimulate the active secretion of the gastric juices. They are a nutritious and wholesome food, especially when kept a little time after gathering and purged of the possible injurious vegetable substances they may have ingested. Snails contain in abundance nitrogen, phosphorus, sulphur, and a ferment capable of transforming their own substance, when swallowed raw, into peptone. Furthermore, the fatty matter abounding in their livers can be used as a substitute for cod-liver oil. Snails are used in phthisis and in certain catarrhal affections in the form of soup, wine, syrup, or other form. Preference should be given to preparations made with the raw snail. Under the name of *d'helicine* a powder is prepared which contains the juice of the snail.

The great snail market at the present time is Paris. More than 100 millions are distributed there annually, of which over 80 millions pass through the Central Market of that city alone. A goodly number are exported to America, and France cannot by herself supply the demand, but looks to Italy, Switzerland, and even to Germany to satisfy, in part, her demands. Those experienced say that snail breeding is easy and inexpensive, and that fortunes have been made out of the business in France.

The three best varieties, and the ones commonly used for the table, are the Bourgogne, or Vigneron (the Roman snail), the largest of them all; this is found in the interior of France and around the vineyards of the Champagne. In color they are grayish-red or grayish-yellow, with stripes of dark-russet or grayish-black. Another species, the garden-snail, smaller, of a clear yellow or grayish-white color, faintly striped, is very common in the north of France. The black-mouthed kind is more prevalent in the southern dis-

tricts, and is much sought after because of the delicacy of its flesh. This variety looks like the garden-snail, but is darker in color and has a very hard shell.

The young snail is fit for the market several months after being hatched. In spite of Pliny's statement, modern authorities declare it is useless trying to fatten them, for they will only contract indigestion if oversupplied with food, through their greediness in devouring it.

The best time to collect snails for market is in the evening after a shower, or at night, by the aid of a lantern, after the ground has been artificially wetted.

H. J. Achard.

Chicago, Ill.

INFLUENCE OF NUCLEIN ON THE LEUKOCYTOSIS IN PULMONARY TUBERCULOSIS

In *The Boston Medical and Surgical Journal* for October 12, last, Dr. Myers Solis-Cohen of Philadelphia, in conjunction with Dr. Albert Strickler, presents the results of his studies concerning the influence of various therapeutic measures upon the different forms of leukocytes in pulmonary tuberculosis. This study of the authors is of very considerable interest, and we regret it cannot here be reproduced in full.

The study is based upon the finding that, in a series of 182 blood counts in 50 tuberculous patients, extending over seven to eight months, the authors have demonstrated that the proportions of some of the different types of leukocytes in cases of pulmonary tuberculosis bear a fairly definite relationship to the progress of the disease. For this reason they decided to determine, if possible, whether any changes in the proportion of the different types of leukocytes occur as a direct result of a therapeutic measure. They mention the hypothesis, advanced by some, which is based on the observation that the leukocytes may carry a remedial agent to certain tissues or organs, where they are then stored; or carried to organs of elimination, where they are rapidly eliminated; or, and particularly in tuberculosis, conveyed directly to the diseased foci.

The authors conclude that in the differential leukocytic count we have a means of studying more exactly than in any way the effect produced by therapeutic measures in patients afflicted with pulmonary tuberculosis. It is impossible to state definitely, however, whether the changes observed in the leukocytic pictures are produced directly in the blood or result indirectly from the change in the general condition of the patient caused by the measure employed.

From the few cases studied, the following deductions seem permissible:

1. Bier's suction-hyperemia, in cases suitable for this treatment, causes an increase in the proportion of lymphocytes and of polynuclear cells with one and two nuclei. (2) Applying fly-blisters every five days and allowing the serum to become absorbed, causes an increase in the proportion of polynuclear cells with one and two nuclei and in most instances an increase in the proportion of lymphocytes. (3) Iodine, in the form of iodoform, administered by the mouth, causes an increase in the proportion of polynuclear cells with one and two nuclei. (4) Creosote, given in the form of the carbonate, as a rule causes an increase in the proportion of lymphocytes and of polynuclear cells with one and two nuclei. (5) Nuclein seems to cause an increase in the proportion of polymorphonuclear neutrophiles. (6) The effect produced in the blood by many therapeutic measures is not, as a rule, maintained indefinitely, but only for a variable period, averaging about a month.

Of special interest is the authors' experience with nuclein, which was given by mouth and the action of which was observed in four patients. Although the number of cases observed is very small, it is gratifying to note that three improved, clinically, to a marked degree, while the fourth seemed to be unaffected.

The authors administered, by mouth, three times daily, 1 dram of a 5-percent solution of nucleinic acid. In three patients thus treated there was an increase in the proportion of polymorphonuclear neutrophiles, with a corresponding decrease in the proportion of lymphocytes. Both types of cells showed no change in one

patient, who left the sanitarium shortly after treatment was begun. The proportion of polynuclear cells with one and two nulcei showed an increase in two cases, a fall in one case, and in one case a rise, followed by an equal fall.

SOME THOUGHTS ON TUBERCULOSIS

During the past thirty years the science of medicine has almost been revolutionized, the microscope and the biological laboratory having solved many of the obscure problems that baffled our perplexed predecessors. It is only thirty-one years since Robert Koch discovered the tubercle bacillus, and to this close observer we owe most of our present knowledge of that parasite, its life-history, manner of growth, and other facts.

Tuberculosis has been named the white plague. It is well named a plague, for it preys upon the bloom of life, aye, before life ever blooms, and it leaves nothing but a bleached and withered waste and little hope for the future, because its progress has been so insidious that it has its victims ere they are aware that anything serious is wrong.

To us, as physicians, is left the problem of controlling the ravages of this enemy of humanity. Today we scarcely can find a family that has not been victimized. Words can not describe how much these sufferers have endured; no one can tell how many family circles have been broken up and impoverished by this enemy of mankind. And then, to make an attempt to estimate the loss to the nation, putting the right value upon life from an economic standpoint, we should have to put the mark in dollars well into the billions for our own country alone.

To the family physician is left the problem of conserving the public health, to him the confiding patient comes for advice concerning his ailment, and thus it behooves us to be a little more painstaking in making our examinations than is the case with many of us. We need to do more than simply ask a few questions and write a prescription. Especially should we use to best advantage all our senses of perception, particularly those of hearing, sight, and touch, which we should cultivate to the highest state of perfection.

To treat a few patients well, is better than to treat many in an off-hand way. We should give the patient our whole attention and weigh each point carefully, and although this requires much more time than generally is devoted to examinations, it pays in the end. The patient usually is willing to pay for a painstaking examination. If we were to lose sight of the commercial aspect of our profession, our patients would be better off and in time our just reward would follow.

In general, more sins of omission are committed by doctors than of commission. To sound the warning note in time may save the patient's life and suffering and hardships to those with whom he is associated. Thousands upon thousands are suffering with tuberculosis because perchance they occupied the bed with some unsuspecting victim of tuberculosis, and most of these might have been saved if the warning note had been given in time by the family physician. How many tuberculous mothers have infected their babes in their arms, just because they had not been told they themselves were sufferers? Should not humanity prompt that they be made aware of the danger?

Knowing that but in very few cases of tuberculosis transmitted through the placental circulation the child lives to see the light of day, we can not help seeing the magnitude of such beneficent care. Many children would live to bless our names and grow up to be stalwart men and women, be living monuments to our foresight, if such problems were dealt with conscientiously.

If we ponder over these facts, we can not help considering the seriousness of our place as family advisers in matters pertaining to health. It has been said that the conservation of the public health is the first duty of the statesman; but I fear that we have but few statesmen who consider the health of their clientele their first duty, else we should have more rigid laws in force in the tenement districts of our cities, places that are veritable hotbeds of infection.

We, as guardians of the public health, must stand our ground and do our whole duty, and advise those in the early stages when there yet is hope of recovery and they thus may live to become useful citizens. Remember that some of the very best citizens of our country today are sufferers from tuberculosis.

For a physician to take a superficial view of the disease with all its dreaded consequences is criminal. God pity any poor mortal who has to be told that he has tuberculosis. It can not help but touch our hearts with sorrow to see the dejected expression of the patient's face, his hopes and his ambitions utterly crushed. But, thank God, the day is not far distant when the physician as well as the layman will look upon tuberculosis in a different light. Seeing those who have been afflicted restored to health and a life of usefulness can not help making the latest victim take fresh hope for the future.

Too many, althogether too many cases of tuberculosis in their early stages, are treated as pleurodynia, neuralgia, rheumatism, gastralgia, liver trouble, gallstones, bowel trouble, neurasthenia, hysteria, and so down the list, until it is too late to do any material good. Then the patient is advised to seek some other climate and to rough it, only to die, many a time, a stranger in a strange land, often even deprived of the veriest necessities of life. Let me adjure you, brother physicians, to ponder over these matters, for the fate of these unfortunates is given into your hands.

C. E. Betts.

Boerne, Tex.

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[Dr. Betts presents some advice to the general practitioner which has been given frequently enough, but which cannot be repeated too often. Some of the points the doctor raises in regard to making an early diagnosis of tuberculosis as well as warning patients as to how they possibly may transmit the infection and thus lay the seed of later disease in those dear and near to them are only too true, and the omission of these precautions has led to much avoidable suffering. We consider it radically wrong—more, we think it criminal —to withhold from a patient suffering from some indefinite ailment, run-down condition, want of appetite, and so on, the result of our examination, in case we find it to be tuberculosis. Then is the time to tell them the facts. When consumption is well developed, he who runs may read, and it no longer requires the services of a physician to make a diagnosis.

When tuberculosis is clinically established and before its ravages have become extensive, proper treatment offers a fair chance of success. But since the patient cannot benefit from such treatment unless he does his share of the work, unless, in fact, he does all of the necessary work, inasmuch as the physician can only advise, the latter can only advise him what to do. It is absolutely necessary for the patient's own good, as well as for the good of his family and friends, that he should be informed, and, to our mode of thinking, a physician who withholds from his patient a diagnosis of tuberculosis at a stage when it is amenable to treatment and to amelioration makes himself guilty of criminal neglect, because he deliberately and through some unfounded fear or false delicacy robs the patient of his best chances. It is true that many people who are tuberculous would laugh in your face if they were told so, but none the less it is incumbent upon the physician to insist upon the correctness of his diagnosis—provided this has been made with proper care—and to warn his patient of the importance of the matter and of the necessity of his making it a business to eradicate the disease while it can be eradicated.

Dr. Betts has put his points none too strongly, and we could wish that he had been much more insistent, for we can not urge sufficiently strongly the necessity of recognizing an existing tuberculosis early enough, so that it may be treated before treatment becomes hopeless.—Ed.]

NEURALGIA, EARACHE, CROUP, PRURITUS, TONSILLITIS, ETC.

Dr. Harwood's paper "Treatment of Neuralgia," (p. 1194, November Clinical Medicine) would have been stronger,

perhaps, had he said, "neuritis of the facial or any other of the larger nerve-trunks." As to this contribution, if quinine emulsion ever fails to relieve his poison-ivy cases, let him try a strong infusion of lobelia, of the fresh herb, if possible. Further, if he adds atropine sulphate (1-2 percent) to his 2-percent cocaine solution, for the treatment of earache, his results will be, I believe, more lasting. Moreover, cocaine solution is too unstable to keep well. So, for those adults who every few weeks have a "spell" of earache, give a mixture of 10 minims, each, of oil of origanum and chloroform, and 1 ounce of olive oil, telling them to put a few drops in the ear and cover the external meatus with oilsilk. [An earache which doesn't yield readily should be looked after by an otologist. These untreated middle-ear inflammations too often extend to the mastoid cells—or the brain.—Ed.]

Here are a few suggestions. In ordinary spasmodic croup, one often finds the gastric irritability, and apparently absorptive power, exhausted by the deluge of household remedies (chiefly emetics) to which the child has been subjected. Give apomorphine, gr. 1-30 to gr. 1-10, hypodermically. Prepare a croup-kettle, by fitting the small end of a paper funnel over an ordinary boiling teakettle and placing the large end before the patient's face. Beware of scalding! Leave sodium bromide tablets, grs. 5, to be given four times daily; also calx iodata, grs. 2, to be given, in hot solution, every one to three hours.

In a case of vulvar pruritus during pregnancy (nondiabetic) all "staple" measures failed till I prescribed an ointment having the following composition: Dilute hydrocyanic acid, m. 12; chloroform, m. 15; carbolic acid, m. 10; petrolatum, ozs. 1 1-2; wool-fat, oz. 1-2.

During the last ten months I have tried to scarify the tonsil in every case of tonsillitis. I had the disease myself last winter and so know the relief this procedure affords. Now, when under calcium sulphide and biniodide of mercury, the inflammation, and particularly the pain, does not show a tendency to leave or abate in twenty-four hours, I scarify, if the patient will permit.

If out in the country and you wish to produce vesication, in the absence of cantharidal plaster, wet a small flannel cloth with kerosene, cover with oiled paper and apply. The patient probably will remove it himself, by and by.

For the irritation of insect bites, especialy those of the flea, use reduced nitrate of mercury ointment—citrine ointment.

Touch small, whitish painful "tongue pimples" with mitigated silver nitrate (ordinary caustic pencil).

Ordinary "cold-sores" may be suppressed, in the early stage, or hastened in their course later, by applying a drop of pure alcohol occasionally.

To relieve dental neuralgia where filling and extraction are both impracticable (for instance, pregnancy) apply to the gums tincture of aconite and tincture of iodine, equal parts.

In those cases of chronic "rheumatism" where pain and stiffness rather than real disability are a feature, insist on rest and application of an elastic bandage. Give aspirin, in fairly heavy dosage, for a week, and follow with potassium iodide, 10 to 20 grains three times a day, with colchicine sufficient to give slight colicky pains. Proper hygiene of the alimentary tract is essential.

R. W. Halladay.

Elm Park, Edmonton, Alta, Can.

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[These "pointers" are helpful. Please give us more—and, who else will volunteer some of them.—Ed.]

THE ALKALOIDS FOR THE GENERAL PRACTITIONER

Before an assembly of the St. Louis physicians, Dr. W. L. Moore read the following paper on the alkaloids, which was printed in *The Wisconsin Medical Reporter*, from which we take pleasure in copying, as follows:

Whether the word "alkaloid" appears on the program or not, there are few gatherings of medical men in which the discussions do not turn to this alkaloidal question. In its consideration I beg leave to begin by saying that I shall look on it

solely from the personal standpoint. I care very little for the interests of the city surgeon, specialist or medical politician, and not at all for their personal quarrels. The man whose interests demand my exclusive care is myself; and hence I shall speak only of what the alkaloids mean to me; and in so far as I represent a class of my fellows, what they mean to others in my class.

There are certain advantages that come from the use of alkaloidal granules that commend them to every doctor who carries or dispenses his medicines in whole or in part. The bulk and weight of these remedies is very much less than with the older forms. A case holding 120 vials, each of which may contain two different drugs, one in granule, the other in tablet form, gives me 240 remedies from which to choose, with about 15,000 doses, weighing in all about three pounds, and of a size that can be slipped in a large overcoat pocket.

There is not a liquid to be spilled and to ruin the case and my clothes. The drugs in these granules do not lose strength by decomposition nor gain by evaporation; they are easy to dispense, needing no scales or measures; they are easy to take, and the children like them; their effects are quickly in evidence, because they are quickly dissolved and absorbed and get at their work without waiting.

Your case is always ready, so that you can grab it, jump into your buggy and light out to answer a hurry-call, secure that among your 240 remedies there will surely be those you shall need.

These are certainly practical advantages that justify a doctor in utilizing these drugs, and for one, I scarcely feel I should be justified in leaving them to the other doctor. I want all the help I can get to hold my own ground and to give prompt and effective help to my suffering fellow men. While I do not believe in deserting old and approved remedies, to run after every new fad that arrives, I do not purpose to leave really good and improved methods to my competitors and be classed as a mossback.

But great as are the advantages above enumerated, they are yet subsidiary to the greater, the all-important one, that when we use the alkaloids we know what we are doing.

Look back at your textbooks on therapeutics, and you will see that the men who made these experiments on which our knowledge of drugs is founded used the alkaloids. Why did they not use the crude drugs? Because these were variable as to quality and action, and no definite results could be secured from any but definite agents. So we find that Wood, Brunton, and the other great investigators worked with morphine, not opium; with atropine, not belladonna; strychnine, not nux vomica; quinine, not cinchona.

But I cannot see any good reason why we should not have the same certainty in our treatment as these men had in their experiments. I want to know exactly what my medicine is *going* to do, not what it is *likely* to do.

Uncertainty is the bane of our work. If we do not know exactly what is the matter, and are uncertain just what our drugs will do, and how much of it they will do, we must necessarily go slow. We must try our drug continuously, watch the effects, and stop it the moment we see things going wrong. This may do in some cases, but in acute diseases we lose the most precious opportunity, that of striking in hard enough to break up the attack before it has become seated in the tissues and inflicted material damage that nature repairs slowly if at all.

Study your cases at the bedside, make your diagnosis as carefully and as completely as your facilities allow, and in the meantime give exactly the drugs that are needed to restore the functions to their healthy operation. You all know how carefully you try out a new tincture or fluid extract; and when you have learned just what it will do, you feel secure—until that bottleful is done and you get a new lot. Then the trying is done over again.

Some men will say that we should not use these active-principle drugs because the leaders do not recommend them. We are always ready to learn thankfully all that these gentlemen can teach us; but we also have some knowledge of our own, some slight skill in clinical observation, and we

have never yet met the doctor who knew all there was to be known.

Others will object that somebody makes money out of the alkaloids. If that holds good, we shall have to quit all drugs and go over to Christian science. It is said that the men who supply the alkaloids make extravagant claims as to their powers. Nobody is as well able to judge of this as we who put them to the test; and when we find the claims unfounded we drop out that drug. *We* are the judges, and if we are worthy of our profession, there is very little danger of our being fooled. The game is in our own hands.

In conclusion, I will say that whenever a new idea is put out by the alkaloidists, a new remedy offered or a new use proposed for an old one, I give the remedy a fair trial. If it proves better than the old, I continue using the new till I get something still better. But taken as a whole, the alkaloidal idea is worth too much to be neglected by any physician.

CONVERSION OF FAHRENHEIT AND CENTIGRADE SCALES. DIRECTIONS FOR WRITING METRIC PRESCRIPTIONS

Since the centigrade thermometer has just 100 degrees, it is clear that it has come to stay, because it agrees with the metric system, which also has come to stay.

If you will keep your eye on current literature, you will soon see that the centigrade is coming in to replace the Fahrenheit thermometer, and, hence, simple rules for converting one scale into the other may be welcome to many. Below I submit two rules, one to convert centigrade into Fahrenheit, the other to convert Fahrenheit into centigrade, which I have found serviceable.

To Convert Centigrade into Fahrenheit Degrees

Multiply the term in centigrade by 2, then multiply the product by 0.9 and add 32. The result will be the degrees in Fahrenheit terms.

Examples: Reduce, respectively, 39.5° C., 40° C., and 37° C. (normal) to Fahrenheit degrees.

(a) 39.5°C. multipiled by 2 equals 79.—79 multiplied by 0.9 equals 71.1.—71.1 plus 32 equals 103.1° F. (Answer.)

(b) 40° C. multiplied by 2 equals 80.—80 multiplied by 0.9 equals 72.—72 plus 32 equals 104° F. (Answer.)

(c) 37°C. multipiled by 2 equals 74.—74 multiplied by 0.9 equals 66.6.—66.6 plus 32 equals 98.6° F. (Answer.)

To Convert Fahrenheit into Centigrade Degrees

Subtract 52 from the term in Fahrenheit. Divide the remanider by 0.9. Then divide the quotient by 2. The result will be the degrees in centigrade.

Examples: Reduce, respectively, 105° F., 106° F., and 98.6° F. (normal) to centigrade degrees.

(a) 105 minus 32 equals 73.—73 divided by 0.9 equals 81.1°.—81.1 divided by 2 equals 40.5° C. (Answer.)

(b) 106 minus 32 equals 74.—74 divided by 0.9 equals 82.2.—82.2 divided by 2 equals 41.1° C. (Answer.)

(c) 98.6° F. minus 32 equals 66.6.—66.6 divided by 0.9 equals 74.—74 divided by 2 equals 37° C. (Answer.)

Converting Troy Prescriptions into Metric Terms

Every-old-time doctor sees the doom of the old form of prescription, and so many wish to adopt the newer style, but do not exactly know how this can be accomplished. The following suggestions will be found to work, and the doctor will soon discover how easy it is.

Just remember that 15 grains is nearly equal to 1 Gram (Gm.), dry measure; also, that 15 drops nearly equal 1 cubic centimeter (Cc.), liquid measure.

Thus, a dram of calomel, dry measure, equals 4 Grams, and a teaspoonful of syrup equals 4 cubic centimeters, liquid measure.

Also, 1 liter (1000 Cc.) equals 1 quart. Therefore, 1 pint (or 16 fluid ounces) equals 500 Cc. Then, 8 fluid ounces equals 250 Cc., and four fluid ounces equals 125 Cc.

As there are 4 drams to 1 teaspoonful, there are 32 Cc. to 1 fluid ounce.

Take, for example, the following prescription, which is "Bell's Bile Booster." Write it out in the old form, and then convert it

into the new, or metric, system. Thus you will be up to date.

Prescription in Troy Terms and Metric Equivalents

Podophyllin .....grs.	3	equals .2	or	o|2
Aloin .....grs.	3	" .2	or	|2
Sod. bicarb. ....gr.	1	" .066		|066
Ipecacuanha pulv.gr.	1	" .066	or	o|066
Extract colocynth. comp. grs. 24		" 1.6	or	1|6
Hydrarg. submur. gr.	24	" 1.6	or	1|6

Mix and divide into 8 capsules. Label: Take a capsule at bedtime or 8 hours apart.

This will get bile when all else fails. It will also teach the metric system in writing it.

Here 3 grains must be divided by 15, to convert into Grams. 1-5 Gm. equals 0.2 Gm. (1-5 being written 0.2).

Next take 1 grain soda and ipecac. Divided by 15, equals 1-15, equals 0.066 Gm.

Now take calomel and colocynth, 24 grains. Divide 24 by 15, to change into Grams. This gives 1.6 grams.

In the place of the decimal points it is customary to draw a line on your prescription blank, up and down, and you simply place the whole numbers of Grams or of cubic centimeters on the left side of this line, and the fractions to the right.

Take another example. This is drys and liquids mixed. Work it out.

Ammon. chlorid..grs.	3	equals 12.	or 12	|0
Codeinæ .....grs.	6	" 0.4	or	|4
Syrup prun. virg. oz.	1	" 32.	or 32	|0
Aquæ,q.s.ad ....ozs.	4	" 125	or 125	|0

Note again: The 3 Grams equal 4 times 3, i. e., 12 Grams. The 6 grains of codeine must be divided by 15, to reduce to Grams, 0.4. The ounce of syrup must be multiplied by 8, because there are 8 drams, and each fluid dram eqnals 4 cubic centimeters, or 32 Cc, in 1 fluid ounce. In the 4 ounces of water we have 125 Cc.

Take another, where there are fractions.

Atropine.....gr.	1-8	equals	0.008
Cocaine .....grs.	xii	"	0.8
Boric acid .....grs.	x	"	0.66
Water. .....oz.	11	"	32.00

M. Sig: Drop in eye as indicated.

Here take the 1-8 grain and divide it by 15. It equals 1-120th. Reduce this to a decimal fraction by dividing the numerator by the denominator. The result is 0.008 Gram.

Remember the rule: Divide dry measure in grains, to reduce to metric terms, Grams. Divide liquid measure by 15, to reduce to cubic centimeters, metric.

Remember that 15 is the key to the citadel.

Again you can multiply Grams by 15, to reduce to grains. Or multiply cubic centimeters by 15, to reduce to minims.

One fluid dram equals 4 cubic centimeters. And one ounce equals 32 cubic centimeters, nearly. One quart (32 fluid ounces) equals one liter (1000 Cc.).

Work this up. Try example after example till you are master.

ARTHUR C. BELL.

Dallas, Tex.

INDICATIONS AND CONTRAINDICATIONS FOR COLON FLUSHINGS AND ENEMATA

J. Boas of Berlin contributes an interesting paper on this much debated subject in *Medizinische Klinik* (abstr. in *Wien. Med. Woch.*, 1910, col. 1898). Boas claims that the advantage of colon flushings in chronic intestinal catarrh consists only in the removal of stagnating residues and of noxious admixtures from the bowel. This may be of value in obstipating catarrh and in stercoral diarrhea, while in chronic catarrh associated with strong peristalsis the treatment is harmful.

Medicated injections, especially of tannin, are useless, even in membranous colitis, and, indeed, may even produce this affection. In like manner, are injections with silver nitrate, alum and lead acetate harmful. Even copious enemata of water may produce membranous colitis. At times small injections into the bowel, in the form of retained clysters of about 200 to 300 Grams of warm water or of Carlsbad water or chamomile infusion may exert a more or less soothing effect upon the diseased mucosa of the bowel; but they have no influence upon the objective symptoms of the catarrhal condition.

On the other hand, a therapeutic effect may be obtained by medicated clysters,

especially by small injections of bismuth suspensions, upon pathologic processes in the rectum or the sigmoid flexure. In acute and chronic koprostasis colon flushings in the lateral or the knee-chest position are to be recommended.

A NEW BOOK BY DR. LYDSTON

We have just learned that Dr. G. Frank Lydston, of Chicago, has in press a book on "Sex Hygiene for the Male and What to Say to the Boy." Knowing Dr. Lydston, we are sure that this will be a great book and that it will treat this important subject without gloves, with absolute adherence to the truth, as Dr. Lydston sees it, and in a manner which will be both practical and startling. We shall present a more extended review of the book later. Meanwhile, if any of our readers wish to rush their orders in, they can doubtless have them placed by Dr. Lydston himself. His address is 810 Reliance Bldg., Chicago.

THE INDEX FOR 1911

We now have nearly ready for distribution copies of the index of CLINICAL MEDICINE for 1911. For the last few years we have not mailed this to all our subscribers with the journal itself, sending it only to those who may request it. However, it is free to all, and a post card will secure a copy—several copies if you can use them.

Every year we are adding to the value of our index. Greater pains is being taken in its preparation. It is made more complete, more cross indices added, all intended to add to the facility with which it may be used. Editorials and book reviews are now given under separate lists, and there is a separate authors' index.

We urge every reader of CLINICAL MEDICINE to procure a copy of the index. Every one should have his magazines bound. If this is done, in a few years you have created a professional library which is thoroughly up to date, and encyclopedial in character. You will refer to it more than you will to your textbooks—and, indeed, it will give you information in detail that cannot be crowded into any one book. But whether you have the journals bound or not, you should have an index and keep it in your desk where it can be referred to readily at any moment. Get this habit, and the index, thus used, will become a necessity. Remember, all it will cost you is a post card. Send it at once.

NEWS NOTES

SEATTLE claims to be the healthiest city in the United States. According to its health commissioner, Doctor Crichton, the death-rate for 1911 was only 9.45.

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DURING 1911, 23,445 persons were treated in fourteen Alabama counties for hookworm. During the year 261 schools were inspected and 27,404 persons examined.

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DR. ARTHUR V. MEIGS, of Philadelphia, a well-known specialist on children's diseases, died on the 1st of January. He was sixty-one years of age and represented the third generation of a family of physicians.

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PRESIDENT TAFT has by an executive order so modified the ruling, which he made recently, regarding the practice of medicine in the Panama Canal zone that the Christian-science and other non-medicinal methods are now permissible in that area.

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The Journal of the Minnesota State Medical Society changed its name, with the issue for January 1, to *The Journal-Lancet*, and is now the official organ both of the North Dakota and South Dakota State Medical Associations, in addition to filling that function for the Minnesota State Medical Association.

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SOJOURNING in a mountainous region seems to conduce to clearness of thought as well as of vision. To realize the truth of this remark, take any number of *The Denver Medical Times and Utah Medical Journal*, and note the contents in comparison with those of many a journal published nearer the sea-level. There are no evidences of senile decay about Drs. Hill and Stimson.

Dr. Rupert Blue, of South Carolina, has been appointed Surgeon-General of the Public Health and Marine Hospital Service, succeeding the late Gen. Walter Wyman. Dr. Blue has been connected with the Service for years and is credited with driving the plague out of San Francisco. Hereafter the Surgeon-General will hold office for four years only, instead of for life as was formerly the case. More next month.

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The Medical Council ("Aerztekammer") of Vienna decided recently that for medical advice given over the telephone a fee may properly be charged and collected. That's sound, and American medical societies may well "get together" on a similar agreement. While the telephone has become indispensable, it also robs the doctor of much valuable time and is used too truly to "steal" medical advice from too complacent practitioners.

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The Canadian Medical Association Journal announces that with the January number, it will initiate a new department under the title of "Men and Books," to be conducted by Sir William Osler, of Oxford University. This promises to be one of the most interesting features of this young, yet promising association organ. Dr. Osler is not only one of our most eminent physicians, but he is also one of our most graceful "literary" medical men.

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The Chicago Medical Society will hold a memorial meeting, on February 7, in honor of Dr. Alexander Hugh Ferguson, a former president of the society, who held a conspicuous place in the field of surgery and medical education in America. The program for the evening follows: "Undergraduate Life and Early History," Dr. A. McDermid; "Dr. Ferguson's Place in Surgery," Dr. A. J. Ochsner, and "Ferguson, the Man," Dr. E. F. Wells.

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Western Reserve University, of Cleveland, has completed its $1,000,000 fund for the endowment of its medical department. This fund was raised in a little more than a year, John D. Rockefeller having offered $250,000, provided $750,000 more could be obtained by December 31, 1911. The authorities succeeded in doing this, with several weeks to spare. This endowment ensures to Cleveland one of the best medical schools in the United States.

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So many attacks have been made upon the medical colleges of Chicago that the local institutions have, themselves, taken the initiative in an investigation into their character. A representative has been selected from every medical college of this city, and these will cooperate with delegates from the Chicago Medical Society and the State Board of Health, to ascertain the exact status of every one of these institutions. This investigation will not be hurried, it will be thorough, and it will be authoritative.

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A Salt Lake City doctor recently expressed it as his opinion that 47 percent of American doctors are using morphine; he also believes that all users of morphine are of unsound mind. The deduction is, that *at least* 47 percent of the medical profession are more or less crazy. Pretty bad, isn't it? We know a good many physicians, and our opinion is that not 5 percent of them are morphine users. That many are "of unsound mind," however, is our sorrowful conclusion—for how else can one explain the tardiness of so many doctors to leave the galenic rut!

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The year 1911 was the healthiest in the history of the city of New York, the death-rate being 15.2 in 1911. Among other items of interest, we note that the cases of fatality from diphtheria were reduced from 10.3 per cent in 1910 to 9.5 percent in 1911. For 1912, the health department of that city is fighting for improvement in the milk supply, with enforced pasteurization; the inspection of hospital facilities for infectious diseases; the establishment of forty new milk stations, in addition to fifteen stations obtained during the past year; and the establishment of five clinics for school children.

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The Medical Times, long edited by Dr. Alfred K. Hills, has been sold to Romaine

Pierson, editor and publisher of the *Practical Druggist* and formerly connected with *The New York Medical Journal*. We shall be sorry to lose Dr. Hills from our "family" of editors, but we congratulate Mr. Pierson upon securing such an excellent journal, the future of which we shall watch with as much pleasure as we have noted its progress in the past. The new editor of *The Times*, Dr. Baketel, is also an old friend. For many years he was the active "booster" of The Denver Chemical Company. Pierson and Baketel will make a great team.

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In Chicago, in 1910, 5286 deaths were caused by pneumonia as compared with 3366 by consumption. In other words about one-sixth of the total deaths in Chicago are due to this terrific plague of the winter months. It is said that last year $14,500,000 was spent in the United States in the efforts to exterminate tuberculosis. How much money has been spent for the eradication of pneumonia? How much effort has been made to increase our therapeutic efficiency in this disease? In spite of the remarkable success attending the active-principle method of treating there are thousands of physicians who have never given it a trial. How can we persuade them to do so?

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How is your Latin? See if you can render the following prescriptions into English. This constituted the menu at the banquet of the physicians of Jefferson County, (Birmingham), Alabama, during the holidays:

Secret formulary of remedies dispensed to the members of the Jefferson County Medical Society at the University Club, on the night of December 28, 1911.

Rx.—Tinct. Martini Comp. Sig. To be taken at once on an empty stomach without water.

Rx.—Emulsionis Pseudoturturis. Sig. One tablespoonful at short intervals until all is taken.

Rx.—Pilulai Amygdalae. Sig. To promote the appetite, take two or three with a pinch of salt.

Rx.—Pilulae Viridis. Sig. In case the above does not produce the desired effect, try these.

Rx.—Stili Apii. Sig. To be used for tickling the palate.

Rx.—Capsulae Locustae Rubrae. Sig. Remove capsule before swallowing.

Rx.—Boli Melegrisi Domestici. Sig. To be given as a test meal.

Rx.—Vini Sauternei. Sig. To get best effect in case of sore throat, sip slowly.

Rx.—Spiritus Frumenti, Aquae Frigidae, q.s. M. Sig. If unrelieved, use this as a gargle.

Rx.—Cataplasmatis Pancreatici; apply internally.

Rx.—Unguenti Etceteratis Frigidi. Sig. Apply cautiously to abdominal region.

Rx.—Massae Adiposis Alcoholis. (B. P.) Sig. To relieve constipation.

Rx.—Confectionis Lactis Bovinae. Sig. A pleasant way for administering the bacillus typhosus.

Rx.—Infusi Coffeae. Sig. A nerve tonic for after-dinner speakers.

Rx.—Extracti Casei. Sig. Poison.

Rx.—Suppositoriae Tabacii. Sig. Insert one in the oral cavity p. c.

Rx.—Joy, happiness, prosperity, aa q.s. M. Ft. One New Year. Sig. For everybody.

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The Peoria Medical Society gave a complimentary banquet to Dr. O. B. Will, dean of the medical profession of Peoria, on Tuesday evening, January 23. It has been the privilege of the writer of this item to know Dr. Will a great many years, and he can testify to the faithfulness with which the Doctor has maintained the finest traditions of the profession. There is certainly no physician in central Illinois who more richly deserves to be honored by his colleagues. Clinical Medicine extends to Dr. Will its congratulations along with the hope that many more years of happiness and success may still be his. Friends he has in abundance, and "no pent-up Peoria" can confine their number.

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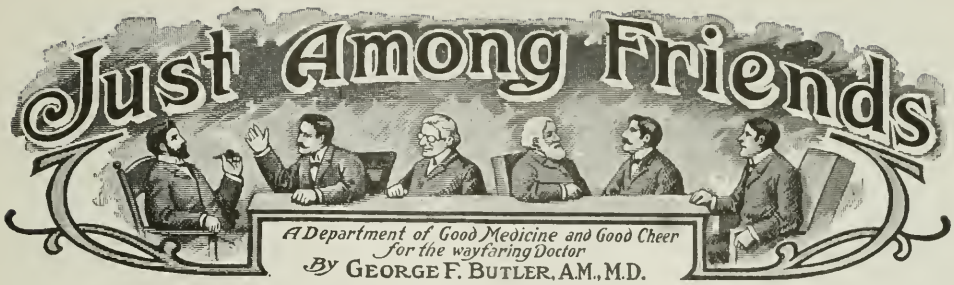
Dr. W. T. Thackeray. for many years the sales manager of The Abbott Alkaloidal Company, retired in December, 1911, to make his home in Texas. You saw his picture in our January issue. The Doctor is already beginning the construction of a beautiful home at Fowlerton, in that state, and is making preparations for planting figs, peanuts, oranges and other fruits and vegetables which grow so luxuriantly in that climate. He has already been elected vice-president of the Fowlerton Progressive League, recently established to boom this exceedingly promising section. If you are interested in southern Texas, which promises to be one of the garden spots of our country, we suggest that you write to Dr. Thackeray and tell him just how you feel about it.



AMONG my books is one, bearing the title "Drugs and the Drug Habit," by Harrington Sainsbury, and one of the chapters discusses "The Objective of Drugs," in which it is set forth that the objective of drugs is the cure of disease. This is their *raison d'être*. No disease—no drugs, no physician: health makes no demands upon the materia medica. With the first departure from health, however, Sainsbury reminds us, the problem of life assumes a new form, and its corrollaries are the drug and the prescription. Accordingly, in the study of the medicaments, it becomes necessary to look at the end which they are expected to compass, the task that is set them; and this requires a glance at the phenomena of disease.

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Nor infrequently errors in diet are sufficient alone to account for the ill health which has arisen, and a readjustment of the dietary leads straight back to health, and is all that is necessary. At other times, while we cannot exactly claim that a dietetic change is all that is necessary, yet it may suffice to restore health if the patient is in no particular haste, content to take this route. Thus, for those that are timid and distrustful, and who cannot rid themselves of the notion that the drug is but a poison masquerading in the garments of the just, it may be better to forego the medicine and let the patient reach his destination by an outer circle.

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It is important to recognize this view of the situation, for it must be remembered that in general it is asked of the physician, not merely that he put the patient on the right road to health, but that this road be the shortest way.

In the third class of cases, change in diet will not of itself suffice to bring about recovery, and here recourse to drugs becomes imperative.

Leaving, then, the question of diet as a substratum which in the case of every form of disease will be laid first, we must proceed to discuss the purposes for which drugs are employed.

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The objects for which drugs are employed are: First, to prevent or anticipate disease; second, to cure disease; third, to prolong life—failing the prospect of cure; fourth, to palliate or mitigate the effects of disease.

To be specific. A traveler, on coming into a malarial district, may take a course of quinine as a preventive in order to render himself less susceptible to the malarial poison. Should he happen to contract the disease, then, by a more energetic course of the same drug, he may find in it a cure for his malady. In certain certain critical stages of heart disease, in which life is imperilled, the timely and judicious use of digitalis may avert the immediate danger by breaking in upon the vicious circle in which the body finds itself, and, a better circulation having been established, life may be greatly prolonged under quiet conditions, although a cure is not possible. The best example of the fourth class of action of drugs is to be found in the use of, say, opium to overcome pain or inability to sleep, the result of pain. This mode of action often is described as purely symptomatic.

To prevent, to cure, to prolong life, to comfort—if drugs can claim to do all these things, they need no special pleading to justify their existence.

Disease as it was known to the ancients is very different from disease as we know it today. The same five senses, it is true, take cognizance of the disorder, now as in the remotest past; but perhaps by a sharpening of the wits, certainly by a sharpening of the senses, through the aid of instruments specially devised therefor, we have been enabled to penetrate more deeply into the processes of life and to view its minuter workings.

Through these artificial aids we have become aware of certain lower forms of life, the much-talked-of microbes, which, as constant concomitants of many varieties of sickness, have come to be identified with sickness itself. The last word has still to be said upon the true relationship of germs to disease, but it is probable that at their worst the microbes of disease are but a link in a morbid sequence leading up to those particular manifestations to which we have assigned place and rank in our nosologies.

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Disease is not a germ, nor is a germ a disease. The specific germ is only one factor in an equation of many factors. Hence, the requirements of the case will not be met by tilting at a single factor—this is too narrow a conception of the nature of the task before us.

Disease is a commotion manifesting itself by a group of symptoms, and treatment means the recognition of each of these as parts of the disorder to be combated. For instance: in fever, the headache, the thirst, the dry skin, the enfeebled digestion, the constipation, the weakened action of the heart. Each and all of the conditions enumerated call for consideration; each is or may be a source of discomfort and an essential part of the whole disease; taking this word at its literal meaning, and by as much as we remove one or other, by so much we lessen the disease itself.

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Conceivably it were possible to meet and overcome all the symptoms of a malady, and this done, what would remain of the sickness in question—shorn of its disabilities, where is it? Moreover, each one of the local perturbations (symptoms) becomes a secondary cause of further disorder by reacting upon the body. Thus, the headache of fever is not in the nature of a mere "aside" or by-play; the pain is an actual depressent which lowers the plane of vitality and intensifies the disease, and this holds for every one of the symptoms, socalled. Nay, pushed home to its logical conclusion, the germ itself, in its virulence, is only a symptom of a morbific antecedent which has conferred upon it the power for evil. Whether this power conferred be of the nature of an increased virulence on the part of the germ or of a diminished resistance on the part of the infected tissues is of no importance for the moment, all that concerns us now being the fact that the germ as a *means of causing disease* is a sequent (symptom) of antecedent conditions.

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It is necessary to insist upon this real meaning of the word "symptom," because we hear so much about *symptomatic* treatment on the one hand, and *causal* treatment on the other, as though they differed in kind; in fact, a symptom becomes a cause *à la suite*, and a cause traced back is found to be a symptom. Indeed, the sequence of disease is very much after the manner of the nursery rhyme of the old lady with the recalcitrant pig. The situation made it rather doubtful whether she would get home that night, because—the pig would not get over the stile, because—the dog wouldn't bite the pig, because—the stick wouldn't beat the dog; and so along the litany. Her plight was the disease, and the beginnings of that went far back into the past. In the end, a saucer of milk started a salutary activity, which ultimately, by way of stick and dog, reached the pig, and led to capitulation and complete recovery from her plight, with the safe arrival home of the old woman.

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Yes, it was a long story, though it might easily have been longer. But the point of it all is, where does the causal treatment begin and where does the symptomatic treatment end, and whether we are to advocate treatment of pig, dog, stick, fire,

et cetera, et cetera, on any difference of principle.

Surely, there is but one principle, and that is, to get at any cause or any symptom which is readiest of access, recognizing that the more remote, the further back the point of interruption of the morbid sequence, the better, for the doctor; for in pathology the march of events is not in single file as above, but takes place along lines of divergence, of di- or polychotomy.

The only principle of treatment, then, is to attack *the cause accessible*. wherever situated; but, if choice be permitted, to place this attack *as far back as possible*, in order to save developments.

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Further, it is essential that we should be quite clear in our minds as to the true meaning of the word "treatment," to understand that it means removal, abolition, annullment—*not* concealment. To paint a jaundiced patient white, to simulate the blush of health upon the pallid cheek by means of a cosmetic, or by the same means to hide the discoloration of the skin produced by a course of silver nitrate, this would in no sense constitute treatment. It would be a make-believe treatment, simply, and beneath the counterfeit presentation the symptom would persist unchanged. It is not uncommon, however, to find symptomatic treatment described as though it consisted in a mere hiding away or obscuring of the morbid manifestation.

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If, on the other hand, a simple anemia should be successfully treated by a course of iron, that would be genuine treatment of a symptom. It might or it might not be the wisest form of treatment; this would depend entirely upon the fundamental conditions, i. e., the origin of the anemia; whether, for instance, it be due to an impoverished diet, insufficient exercise, hygienic defects, overwork or other transgressions, and whether the cause were accessible or not. In any case, it would constitute "treatment"; and with the correction of the pale blood these secondary effects depending *immediately* upon the deficiency of iron in the corpuscles would fall away. To treat a case symptomatically, therefore, never is to hide; it is perfectly proper and fully as scientific as *causal* treatment.

Thus we have a right to use any drug, old or new, and use it in any way that we see fit to combat disease, so called, or the symptoms of disease.

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This morning I looked from my window and saw the yard robed in a delicate frostwork, beneath a cloudless sky. I murmured with good Belarius, "It is a great morning!" and with the shadows of night seemed to vanish every mortal care. It is this constant recuperative energy of the human soul that best asserts its existence here and the inevitable life hereafter. Nothing seems to dim the luster of a spirit bowed by fate, yet even aspiring with renewed hope and calm, and the unshaken confidence that God is and that God is good. Whosoever created this divine morning cannot but forgive the sins of men.

But the world of pain is hard to bear, and there seems no earthly recompense for solitude when the heart and fancy teem with affectionate images and a blessed sympathy forever withheld, still hoped for, prayed for even in vain. Even the great Dante could not sustain himself alone, but wandered from a cold hearthstone to the sacred crypt fragrant with the memory of his early love, to lay a wreath of amaranth upon her blessed ashes, even in "that medieval miracle of song," and in his sublimest vision still beholds the living love which was in secret his master-theme. Here is the close of canto four:

"Full of love's light, the eyes of Beatrice
Looked on me then, with splendor so divine,
That all my heart to hers was captivate
And I was like to swoon with depth of love."

It needs but an ordinary perception to discover in all that bitterness and anguish of the spirit that conceived the passion portrayed in the "Vita Nuova," the most ethereal emanation of a human mind, compared with which Petrarch and Coventry Patmore are passionate after the manner of less gifted mortals.

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One should read Rosetti's translation of the "Vita Nuova" and of the "Angel in the House"—writings out of date in these days

of lesser insight and more prurient expression, but filled with the immortal fervor that will haunt mankind when the poor triumphs of an hour shall have passed away. Honoria is fairer than Gwendolyn, as the gentle unsullied soul of woman is greater than the heroine of society evolved from the brain of genius.

It is said that shortly after the publication of "The Betrothal" and "The Espousals," which had fallen comparatively dead before the English public, Mrs. Samuel G. Ward of Boston visited England, hunted up Coventry Patmore and told him, as she might well have told, how charmed American critics were with his poems. The poor man was quite overcome—and never wrote again. Truly, he had not written in vain. He had friends.

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I know how Coventry Patmore must have felt at receiving such praise from such a talented woman. Sometimes I imagine I have at least a rudimentary mind. Then I send a poem to a magazine—to discover that I am a born idiot. This, surely, is not very enlivening. Then, however, there is, now and then, the pleasing variety of finding my efforts accepted—as if by mistake; but no suggestion of them, either typographical or pecuniary, afterward! This, too, like Xanthippe, of yore, is rather tedious, although, perhaps a fine discipline.

I think I know just what the public wants, and I believe I could furnish such miserable pabulum; it shall have, however. my pearls—such as they are—or nothing,

As for the publication of poetry, of sentiment, there is now no ear for the beautiful sorrows. We, the people, must have soothing syrups, not verses; patent diapers, not sentiment. So I sing, as a rule, to myself, sometimes crooning over the ashes of love, and hope, and joy, but never long impatient at heart.

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My thoughts, I hope, are profitable and wholesome, and there is an inner conflict going on night and day, whereof no man dreameth, in which I am always at the front. No mind of any seriousness and depth can but be inspired by the splendid attitude of spiritual battle with its own weaknesses. But no one, I fain would believe, sees all this, nor have I wished that anyone should. My verses, however, not infrequently are traitors to me, and that is why I have, heretofore, published so few of them. However, some of these products of my leisure moments I have selected and gathered into a small vlolume, and have recently ventured to put them into print, under the title of "Echoes of Petrarch," being sonnets of love and sentiment with interludes. A limited number of copies have been struck off, and any of my friends, known and unknown, who may perchance feel an interest in this attempt of mine to picture the deepest and finest emotions of the human soul, may procure them by addressing either me personally or The Ralph Fletcher Seymour Company, Fine Arts Building, Chicago, who are the publishers.

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It has required some courage for me, a physician, to publish a volume of poems, but a poet must be prepared to face his responsibilities. These things of ours are wrought for the embellishment of truth, the embodiment of beauty. They can achieve neither the one nor the other if they are immured. A poet must purchase the courage of his endeavors and learn to endure the carpings of fools and the censure of those wiser and more righteous than himself.

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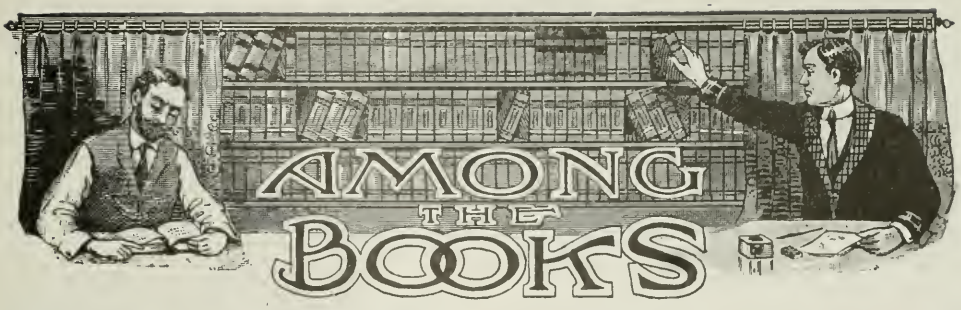
The inner, spiritual life—that is what is becoming more and more of moment to me; and all the rest—society, friends, foes, and all—extort from me only automatic signs, not to be compared with my meditations. Not that I am an ascetic or partake in any way of the errors of misanthropy. I try to do my duty as a citizen, a social being, and a friend; but there is that which gushes from my heart and illumines my thoughts—and not infrequently flows from my pen—which none can justly appreciate, save the tender divinity that wakes in me these ennobling emotions. So I know that my friends will pardon me for now and then writing poetry and sentiment, something which is too far removed from medical literature—for the doctor is, after all, a *man*.



BRYCE'S "POCKET PRACTICE"

Bryce's Pocket Practice. By C. A. Bryce, M. D., Editor Southern Clinic, Richmond, Va.

Right now you must be looking for a visiting list, and naturally you would like to have, not so much *a* visiting list, as *the* visiting list. Get Bryce's. It is the usual size, 4 x 6 and about 1-3 of an inch thick, rather smaller than most of the kind as to size and weight, but judged by the material it contains, it's a "whale." It gives, as usual, a list of poisons and their antidotes, incompatibles, hints on the examination of the urine, rules for doses, new remedies, dose-list, besides the visiting list. The latter is so arranged that one may start on any date, each page presenting one week's record for thirty patients, with blank pages for cash records and other memorandums.

Preceding the contents named and occupying about one-third of the volume, comes Bryce's "Pocket Practice." Here, the commoner diseases are taken up in alphabetical order, to each of which are devoted from a half page to one and one-half pages of condensed information of just the sort the busy doctor wants quickly to freshen his mind and bring back to memory things he knows very well but may not be able to recollect on the spur of the moment. The recommendations are straightforward, to the point, exactly what they should be. Hence our recommendation of Bryce's Visiting List as containing all the good features of the other visiting lists and just this much more.

Still more: Following the division on "Practice," comes a 6-page chapter on Ophthalmic Emergenices in General Practice, by no less an authority than Geo. M. Gould. We do not know when we have seen more useful information crowded into so brief a space. It is exactly the information which every practising physician should have, and should have with him for use just when he needs it. One valuable feature is this: Much of the treatment described for cases of the emergencies which beset a physician names those remedies which a physician usually carries with him, rather than those for which he might have to wait hours to procure from the pharmacy, and then even chancing the pharmacist's not having them in stock or their being of good quality. Most of the indications described by Bryce can be met by a 12-vial granule-case, carried in the vest-pocket, and met more effectually than by any other known remedies.

The price is $1.50, which includes a year's subscription to *The Southern Clinic*, one of the brightest of our southern exchanges.

SCUDDER'S "FRACTURES"

The Treatment of Fractures, with Notes Upon a Few Common Dislocations. By Chas. L. Scudder, M. D., Surgeon to the Massachusetts General Hospital. Seventh Edition, Revised and Enlarged. Octavo, 708 pages, with 990 illustrations. Philadelphia: W. B. Saunders Company. 1911. Price, buckram, $6.00 net.

Scudder's book on fractures has been a faithful aid—not only to surgeons, but even more, we believe, to the general practitioner --for so many years that a new, enlarged edition naturally is greeted with acclaim, nor are we disappointed in expecting much that is new.

The present edition contains a chapter dealing with the operative treatment of

fractures, which has, of late years, received considerable attention. The radiographic illustrations have been increased in number, and there have been added to the legends of certain of these brief suggestions regarding the treatment of injuries. Much other new material has been introduced, as, for instance, in the chapters on fractures of the skull, on old fractures of the nasal bones, on fractures of the spine, and so forth. So, altogether, the book in its present form deserves, even more than before, a place in the library of every practising physician, and more particularly among those books which he constantly keeps handy for frequent reference.

"PAPERS FROM THE MAYO CLINIC"

Collected Papers by the Staff of St. Mary's Hospital, Mayo Clinic, Rochester, Minnesota. Philadelphia and London: W. B. Saunders Company. 1911. Two volumes, for the years 1905–1909, and for 1910. Price, each volume, $5.50.

The contributions to current surgical literature, from the Mayo Clinic, have been numerous and valuable and their collection into bound volumes is an undertaking certain to meet with approval. The Doctors Mayo, we understand, have decided to permit the publication of these papers from year to year, or as the need may arise, and in this way we shall be enabled to obtain excellent records of the work being done in their world-famous institution.

RUHRAEH'S "DISEASES OF CHILDREN"

A Manual of Diseases of Infants and Children. By John Ruhraeh, M. D. Third Edition, Revised. Duodecimo, 534 pages: fully illustrated. Philadelphia: W. B. Saunders Company. 1911. Price, flexible leather, $2.50 net.

The third edition of the manual of diseases of infants and children by Dr. Ruhraeh has been rewritten and enlarged, although it has purposely been kept within circumscribed limits, so that the student may use it for rapid reference in sick-ward or clinic. It is also useful as a desk-book for the practising physician. The text naturally is very concise and rather more of the character of notes than that of a detailed treatise. The arrangement is excellent and the treatment of the material most acceptable and useful. The little volume is a veritable *multum in parvo.*

GRIFFITH'S "CARE OF THE BABY"

The Care of the Baby. By J. P. Crozer Griffith, M. D. Fifth Edition, Revised. Duodecimo, 455 pages, illustrated. Philadelphia: W. B. Saunders Company. 1911. Price, cloth, $1.50 net.

Dr. Griffith's book on the care of the baby is well known and is a great favorite, not alone among physicians and nurses, but among mothers as well. We need only to announce this new edition as a proof of the esteem in which the book is held. It is one of those productions that the physician can recommend to his patients, who are mothers, for study.

MUSSER-KELLY'S "PRACTICAL TREATMENT"

A Handbook of Practical Treatment. By Many Writers. Edited by John H. Musser, M. D., LL. D., and A. O. J. Kelly, A. M., M. D. Vol. II. Philadelphia: W. B. Saunders Company. 1911. Price, cloth, $6.00 net.

The second volume of this work, except the two chapters on diseases of the cardiovascular system and on the surgery of the heart, deals entirely with infectious and parasitic diseases, and these are written by men of well-known experience. For instance, the chapters on pneumonia is contributed by Dr. Hobart Amory Hare; the chapters on the acute exanthemata, by Dr. George H. Weaver; that on tuberculosis, by Edward Osgood Otis; and so on through the entire list. As was to be expected, the "specific", or vaccine (bacterin), treatment of infectious diseases has received more or less attention, according to the personal bias of the authors, and will, we are convinced, be read with particular interest by students of this work.

The volume is of the greater importance, inasmuch as it collects the present-day

tenets and ideas concerning the origin, nature, and amenability to therapeutic measures, of infectious diseases—matters which have been discussed extensively within the last few years, owing to the advances in the bacteriologic and serologic investigations. These are at the same time subjects on which the practitioner needs must keep himself informed, and so the condensation of all the most important information available in a single volume is much to be commended.

Musser-Kelly's "Practical Treatment" has made good its claim to being admitted among the standard "handbooks" and will prove a standby to the student. We are in the *qui vive* for the third volume.

FORCHHEIMER'S "PROPHYLAXIS AND TREATMENT"

The Prophylaxis and Treatment of Internal Diseases. By F. Forchheimer, M. D. Second Edition. New York: D. Appleton & Co. 1910. Price $5.00.

This book of Forchheimer's, the second edition of which we take pleasure in announcing, is what the title implies, a treatise on the prophylaxis and treatment of internal diseases.

The author takes up, in the first section, the prophylaxis and treatment of the specific infectious diseases which, in accordance with recent classifications include, very properly, lobar pneumonia. It is of interest that such rare infectious diseases with which we do not come into very frequent contact, as Asiatic cholera, plague, Malta fever, beri-beri, and so on, are also considered. The measures which are suggested, both prophylactically and therapeutically, are always presented in brief and concise paragraphs; in fact, the entire book is free from purely theoretical discourses and contains a wealth of suggestions to the thinking physician who desires to work out his own plan of treatment and look up his literature more for suggestions than for directions. It is hardly a book for the physician who blindly follows the directions which he finds in print; but, then, this class of books is decidedly out of place in the library of the physician anyway.

In the second section the diseases produced by animal parasites are discussed, and in the third, the intoxications, including food poisonings, intestinal autointoxication, and sunstroke. Then follow sections on constitutional diseases, on diseases of the digestive system, diseases of the respiratory apparatus, of the circulatory system, of the blood, of the ductless glands, the kidneys, and so forth.

In the appendix information on the composition of food-materials and on the general principles in the treatment of poisoning will be found. It is further enriched by a list of drugs with dosage and mode of administration, and by a list of "favorite" prescriptions.

As the reviewer has already said, the book is a valuable one to the thinking physician. The treatment advised is that found most satisfactory by consent of the leading authorities. We personally believe that in many instances the alkaloids might suitably be substituted for tinctures and fluid extracts, where they are suggested.

BOSANQUET'S "SERUMS," VACCINES, AND TOXINS"

Serums, Vaccines, and Toxins in Treatment and Diagnosis. By Wm. Cecil Bosanquet, M. A., M. D., and John W. H. Eyre, M. D., M. S. Illustrated. Second edition, thoroughly revised. New York: Funk and Wagnalls Company. 1910. Price $2.00.

This little volume forms an excellent manual for the general practitioner in the administration of biologic methods of diagnosis and treatment. The principles of immunity and of immunization are concisely and clearly set forth. It must, however, not be supposed that even with the most lucid description the study of infectious diseases, their diagnosis and etiologic treatment can be made easy. It always requires close application and study.

The authors of the book before us have collected and sifted the enormous literature on this complicated subject since the appearance of the first edition in 1905, and have given us the benefit of the most important contributions to knowledge. It

is fortunate for the practitioner who depends upon the conclusions of his authors that they are in this instance decidedly conservative in their judgment and do not permit themselves to be carried away by any enthusiastic reports. As a matter of form, the reviewer desires to side with the authors in their objection to the term "vaccine," since preparations designated in this manner are made from dead cultures of microorganisms, while vaccination is performed with the living virus. Unless we are much mistaken, Dr. F. E. Stewart of Philadelphia first proposed the use of the term "bacterin" instead, and we consider this a far more fortunate and correct name for the class of remedies thus designated.

Bosanquet's book considers the etiologic treatment of all bacterial diseases, and affords sufficient guidance for the practitioner in his endeavors to deal with these affections by biologic means. We agree with the authors when they attribute the greater importance to "vaccines"—or, to use the preferable term, to bacterins—than to antibacterial serums, which, latter so far, have proved disappointing, although diphtherial antitoxin has been placed beyond criticism as an indispensable remedy; but this is practically "the exception which proves the rule."

The diagnostic indications and instructions for the different biologic methods of diagnosis are not only instructive, but also useful, and the practitioner will frequently find that he can carry out many of these tests without any complicated laboratory apparatus. We recommend the volume cordially for the study of the general practitioner, and even the trained research-worker will find it of value for quick reference and as a guide to much important literature.

ANDERS' "PRACTICE OF MEDICINE"

A Textbook of the Practice of Medicine. By James M. Anders, M. D., Ph. D. Tenth Edition Revised. Octavo, 1328 pages; fully illustrated. Philadelphia: W. B. Saunders Company, 1911. Price, cloth, $5.50 net.

Anders' "Practice of Medicine" is an old standby, and a new edition does not need to be introduced, simple announcement of its publication being sufficient. The author says, in his preface, that the revision of this edition has been very thorough, an attempt having been made to bring all subjects up to date, and to adapt them to the requirements both of student and practitioner. Many new subjects have been introduced in this edition, among which we find, for instance, discussions on the value of milk-sugar in typhoid fever; Chantemesse's serum in typhoid fever; Brudzinski's sign in cerebrospinal meningitis; tonsillectomy in acute articular rheumatism; artificial pneumothorax in pulmonary tuberculosis; Ehrlich's new remedies for sleeping sickness, syphilis, and malaria; and many more. We wish this new edition the success that its predecessor so deservedly enjoyed.

HUTCHINSON'S "SYPHILIS"

Syphilis. By Sir Jonathan Hutchinson, F. R. S., F. R. C. S. New and Enlarged Edition. New York: Funk and Wagnalls Company. 1910. Price $3.00.

When a writer of Sir Jonathan Hutchinson's experience and renown presents us with the results of his clinical observations during more than half a century of medical practice, we may confidently expect to learn something worth while. The present treatise on syphilis is not and does not pretend to be a theoretical dissertation, nor does it yield unduly to the dicta of the laboratory. It is decidedly the expression of the author's own experience, which has been unusually large, and affords guidance and advice for the management of clinical conditions such as we find them in the dispensary and the consultation room.

It is somewhat unfortunate that the book was put forth just before Ehrlich announced his new arsenical remedy, for it certainly would have been interesting to learn Sir Jonathan's opinion on a therapia sterilisans magna as applied to syphilis. We unstintedly recommend the book, feeling certain that the general practitioner will find much in it of immediate value.

PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

ANSWER TO QUERY 5726.—"Psoriasis."—A correspondent suggests that in the treatment of psoriasis, we should not forget to call attention to the value of two preparations supplied by Knoll & Co., New York, viz., eugallol and lenigallol.

Eugallol is pyrogallol monoacetate, and is said to be about ten times as powerful, therapeutically, as pyrogallol, yet far less toxic. It is much used to destroy inveterate patches in old and persistent cases of psoriasis. It is applied with a brush as a paint, either pure or diluted with equal part of acetone; it forms an elastic varnish over the skin, which, when dry, should be dusted over with zinc oxide.

Lenigallol is pyrogallol triacetate. This is a white powder, insoluble in water. This remedy has a very gentle but persistent cauterizing action; allaying itching and drying up the exudation. It is principally used in eczema, but is also indicated in slight cases of psoriasis after subsidence of the inflammation. It is applied in the from of ointment or paste containing from 1 to 10 percent of lenigallol, as may be required.

ANSWER TO QUERY 5755.—"Corneal Ulcers."—Editor's comments should be carefully followed, also (a) examine teeth carefully for caries, abscesses, etc.; (b) exclude infection of antrum of Highmore and frontal sinuses; (c) examine nasal cavity for hypertrophied turbinates and nasal obstructions of any kind; (d) see that the lacrymal ducts and nasal canal are open and sterile, i. e., syringe out with saturated boric-acid solution and 1-2-per-cent cocaine.

Treatment. If one of above reveals diseased condition, give it proper care: (a) apply protargol (10 grs. to ounce), once daily; (b) at night cover eyes, with absorbent cotton saturated with 50 percent boric-acid solution, and allow to remain all night or until day; (c) internally give one dram syrup hydriodic acid, four times a day, and a brisk cathartic daily. One week will see patient beyond his trouble and I doubt if it will again return. My experience has been exceptional in above cases.

R. O. BROWN.

Forrester, Ill.

ANSWER TO QUERY 5765.—"Morbid Drowsiness."—After reading the reply to Query 5765, on page 120 of January CLINICAL MEDICINE, I can not resist the temptation to suggest a plan of treatment that was carried out with the most satisfactory results in several patients who have come under my care during past months.

To begin with, a very competent nurse is necessary—positively indispensable. If in a private home, clean *it* out first. Then the patient should be subjected to the three C's process, and thoroughly at that, not only for one time but continuously until the stool, the pulse, urine, temperature, skin and all the excretory organs are thoroughly active. The above is nothing new, but, like many other things, too often taken for granted.

If the patient can be placed in a hospital or sanitarium, good. The diet is the old Salisbury idea. One hour before each meal give one pint of hot water, and one half hour before meals give in a little water a teaspoonful of the following: Infusion colombo, 3 1-2 ounces.; dilute phosphoric acid, 1-2 ounce.

Beefsteak (broiled), 1-2 pound or less, and one small piece of bread are to be given for breakfast and supper; at dinner, the whites of two eggs, poached or put in container and placed in a hot-water bath until coagulated. Salt may be added—no pepper. From 5 to 15 grains of Merck's papain are given after each meal.

When the patient has been cleaned out and excretions are practically normal for the individual case at that time, I continue the same treatment and add sanguiferrin with or after meals. If the bowels are constipated I use an ounce of sodium bicarbonate in a quart of lukewarm water, as an enema.

During the entire time, and from the beginning, I give nuclein solution, 20 drops hypodermically every four hours, and sponge the entire body, face, neck and ears with epsom-salt solution, every four hours.

I keep close to the diet described until conditions require change and then add, very slowly, stewed fruits, and those with least possible acids; i. e., prunes, etc. Urine is examined every three days, and if it remains acid, I give sodoxylin. If much indican is present and persists I use ichthyol, one or two drams to the pint as an enema. I also keep an application of epsom-salt solution about the neck and this is protected by fitting a piece of stork sheeting over it to keep it moist and prevent soiling the bedding. Three weeks is a short time, but in six weeks a vast improvement takes place. Don't forget arbutin if urinary solids are low.

This is not giving much medicine you will say, but it is *results* we all want, and with the above method I have been very much pleased and so have the patients and their friends. It requires *sticktoitiveness*.

F. V. Dotterweich.

Ashland, O.

QUERIES

Query 5770.—"Gastric Ulcer as a Sequel to Abdominal Grip." C. B. D., Ohio, some time ago was called to see a woman suffering intense pain at the base of the brain. She also had some fever and general aching of the body. It was considered "grip" at the time, and recovery in a short time being expected. Instead, the conditions persisted for several days, when she began to vomit and to complain of pain in her stomach. The pain in back of the head became somewhat less, and the temperature, which did not get above 102° F., subsided. The vomiting continued, and after a few days she began to spit or vomit up small quantities of blood. She then complained of pain in the left side, under the left shoulder-blade, and down in the abdomen, over the region of the ovary. The blood always is of a bright-red color, and amounts to about a teaspoon- up to a tablespoonful. She also vomits up quite a good deal of mucus and bile and eructates large quantities of gas. She is unable to retain even the blandest of food.

At present the woman complains of continual pain in the stomach, this sometimes getting so intense that a hypodermic injection of morphine is necessary to subdue it; nothing less than one half-strength H-M-C tablet, or 1-2 grain of morphine, hypodermatically, will do any good. She has taken seven 1-2-grain doses of morphine every half hour without effect. Her tongue is clean and has been throughout her illness. The bowels move and the stools look natural, but the morphine constipates her. The kidneys act daily, the urine being normal but not very much in quantity. She has never passed blood by the bowels. Before she got down sick the least disturbance—the rattling of a newspaper or a sudden noise—would disturb her. She complains of an intense burning in the bladder, and when she attempts to urinate the burning is so great that she almost has a

nervous chill. She had this burning for some time before she got really sick; for a few days there was complete strangury. Her pulse remains good at all times. There is fever. The liver seems all right; her complexion is good, and she has not fallen away to a very great degree. She is several years past the menopause; has never borne children.

The woman is of a highly nervous temperament, and the doctor has attributed her trouble mostly to her nervous system—neurasthenia with, possibly, gastric ulcer. She becomes a little hysterical at times. She will sleep all night, and, if she awakens, will go back to sleep again. However, in the morning, as soon as she arises, she begins to vomit and belch violently and nearly always vomits up a little bright blood. A hypodermic injection in the morning will not keep the pain down all the day, the same as one in the evening will do for the night. Two other physicians have seen the patient in consultation. One attributed her trouble to her liver, the other to a hyperacid condition of the stomach (the vomitus is acid), with a neurasthenic condition. Another doctor had her under his care for two weeks, and he attributes the trouble to the woman's nervous condition, with the possibility of a gastric ulcer being present.

We do not think that a positive diagnosis can be arrived at without examination of the stomach-contents, secured after the exhibition of an Ewald or Boas test-breakfast. Had the stools been examined microscopically, we are reasonably certain that blood would have been discovered, though duodenal ulcer can, we think, be definitely excluded. The persistent hemorrhage and peculiar character of the pain definitely proves the existence of a gastric lesion, and it is quite possible that the woman suffers from gastric ulcer; but there is some further abnormality.

It is more than likely that the patient may have had a chronic gastric catarrh the inflammation involving the stomach particularly. The symptoms you speak of as being present when first called were practically pathognomonic of the abdominal type of grip. The persistent vomiting may have set up or else increased an already existent congestion of the gastric mucosa, and the hemorrhage may emanate from an unhealed lesion. Given these conditions in a toxemic and hysteric patient, and we have a very fair reproduction of your case. You do not state what influence food has upon the pain; neither do you inform us definitely of the existence of tenderness upon deep pressure in the epigastric region. Make quite sure, Doctor, that the blood does emanate from the stomach. Some hysterical patients produce "hematemesis" by sucking their teeth.

We cannot see any evidence of hepatic disease. You may have to do with hyperchlorhydria associated with gastric ulcer, together with—as has already been pointed out—general autotoxemia. Marked tenderness on pressure over a small area in the epigastrium and over the origin of the last two ribs on the left side of the spine is a very constant sign of ulcer. The painful area in front is usually situated in the median line of a little to the left of the ensiform process. You must not forget, however, Doctor, that in a neurasthenic and hysteric patient tenderness on pressure alongside of the spine is frequently complained of, even in the absence of gastric ulcer. The vomiting in gastric ulcer occurs as a rule one or two hours after eating, when digestion is approaching its height, the pain commonly ceasing after its occurrence. The ejected matter consists of partly digested foods containing either a normal percentage or an excess of free hydrochloric acid. A careful quantitative test for such excess should always be made.

If you are not prepared to make quantitative tests, it will be of importance to learn at least whether free hydrochloric acid is present or not. To determine this, drop into the stomach-contents (after filtering, if possible) 2 or 3 drops of a 1-2 per-cent solution of dimethylamidoazobenzol in alcohol. A brilliant red color will result if free hydrochrloric acid is present; otherwise the liquid will assume a yellow color. A very large excess of lactic or possibly other organic acid may also produce a reddish color. It would be better,

we think, for you to give a test-breakfast and then forward the stomach-contents to a pathologist, sending at the same time a specimen of urine and a small quantity of feces. Upon receipt of the laboratory report we shall be in a position to make a positive diagnosis.

The vesical condition does not seem to us of special importance. We should feel inclined, however, to wash out the bladder with warm boric-acid solution; also to give several high decinormal salt enemata. We should stop the morphine injections and give orthoform or a gastric sedative for the pain. You may also order barley water or flaxseed decoction freely, adding a dram each of a good preparation of hydrangea and corn-silk to each glassful. Kava-kava also is indicated. Rectal feeding may be necessary. In fact, we should be tempted to wash out the stomach carefully; then exhibit silver oxide and hydrastin alternately, resting that organ by feeding the patient per rectum.

The main thing at the present moment is to understand clearly the pathologic conditions you have to contend with. We suggest that you read Putnam's paper "A Clinical Study of Gastric Ulcer and Conditions Possible to Mistake Therefore," which appeared in the Post-Graduate for May, 1911.

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Query 5771.—"Antitoxin and Immunity." L. B. W., Tennessee, desires to know if persons have been exposed to diphtheria, how long it will be before they are out of danger of contracting the disease; also, if antitoxin is the best known remedy for diphtheria, and if it is a means of protection for those exposed, and if so, for how long.

Antitoxin is unquestionably the most positive remedy for diphtheria. It should be used early. The mildest cases require 3000 to 5000 units; marked cases call for 7000 to 8000 units. Laryngeal cases should always receive the larger quantity. In advanced cases, in patients over ten, 10,000 units may be exhibited and the dose repeated in from six to eight hours. The action of serum is evident (when effective) within twelve hours. There is diminution of the fever, the child feels and appears better, and the membrane stops spreading and begins to loosen and shrivel. Local edema (even when so severe as to seem to necessitate intubation or tracheotomy) subsides and the cases come well under control.

Systemic antisepsis and the destruction of bacteria and toxins can be secured in more than one way. A clinically clean patient, saturated with calcium sulphide, will, if given nuclein in proper doses, and if suitable local applications are made, be far better able to dispose of the bacteria of the disease and their toxins. The moment the disease is suspected, thorough eliminative and antiseptic measures should be instituted, and, if possible, a swabbing from the throat submitted to a competent pathologist.

The fact that diphtheria antitoxin now holds the first place among specific remedies is due to the early administration of large doses. McCollum, of the Boston City Hospital, states that he has yet to see a patient die from diphtheria who received antitoxin in sufficiently large doses within twenty-four hours of the commencement of the attack.

Antitoxin prevents diphtheria, and, in suspected cases, it may be administered advantageously. As a prophylactic give 1000 units. Should the infection appear, twenty-four hours later exhibit from 3000 to 5000 units, injecting again an equal quantity or even more eight hours later if no improvement is observed. Some observers claim that the age of the patient need not be considered.

The period of incubation is not definitely settled, but is probably four to six days. Ten days would be a safe quarantine period. Immunity is short, one attack protecting the individual only for a few weeks. As early as two months after an attack a second infection has been noted.

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Query 5772.—"Hydropericardium." C. M. M., Michigan, has a patient, a veteran of the Civil War, who has had trouble with his heart ever since that time. For the past three or four years "the condition apparently is dropsy of the pericardium." He describes a feeling of oppression in the region of the heart and "has a desire to put

in his hand and tear everything out, and then suddenly there is a feeling of something giving way and pouring down about the stomach. After this there is relief for several days or weeks, until this condition gradually comes on again; that is, there seems to be a gradual filling of the pericardium, rupture allowing the escape of the fluid. Then, the pressure being relaxed, the rupture is healed, and the process repeats itself." There is also a ptosis, owing, probably, to the increased weight; and there is tenderness or soreness to the left and below the left nipple.

After considering the somewhat limited clinical data presented we have come to the conclusion that this patient suffers from a hydropericardium, with, perhaps, a formation of gases from fermentation of the gastric contents, which produces upward pressure and sinking of the effusion. It would be impossible to explain otherwise these periods of relief; for, if an effusion exists and it were allowed to escape by rupture of the pericardium, it would have to go *somewhere*—and, where could it go? If it were to escape into the pleural cavity it would not be absorbed in a patient of this age, and suffocation would undoubtedly result. Further, Doctor, we have every reason to believe that rupture of the pericardium means death. The prognosis is unfavorable, the age of the patient rendering the outlook gloomy.

We would give the patient a dry diet, push calx iodata and arsenic iodide in fairly full doses and in alternation. Support the viscera with a well-fitting abdominal belt. Keep the bowels freely open with phenolphthalein and castor oil. We should not give laxative salines in this case. Before each meal, let the patient take cactin, bryonin, and asclepidin; after food, papayotin and charcoal, following, an hour later, with pancreatin, bilein and sodium sulphocarbolate.

If you have the "nerve" and will maintain the strictest asepsis, tap the pericardium and find out definitely the character of the disorder. As you are aware, air sometimes enters the pericardial sac. In your case, we believe, there is present a moderate effusion, the level of which rises and falls according to the pressure exerted by gases of fermentation.

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QUERY 5773.—"Lupus. Eczema." J. M., Texas, is treating a case of lupus nonexedens of more than thirty years' standing. The patient is a woman whose family (three or four boys and two girls, all over 14 years of age) is perfectly healthy. Her chin "is raw as a beesteak;" small warty looking growths, about the size of half a strawberry, appear on the surface, although having been removed once. The patient is anemic. Her muscles are soft and flabby. Digestion is very good. She has no other trouble.

2. A unique case of "chronic eczema" of about fifteen years' standing, in a mother who, when nursing her child, had mastitis. She says "abscesses formed in the breast," and yet she nursed the baby. Soon after, an eruption appeared (when the baby was about 4 months old), and this has continued ever since "in spite of all the medical skill of Texas doctors." The eruption is on the arms, neck, shoulders, back, and worst of all, on the external surface of the pudic labia. The itching is almost unendurable. Ten doctors have had her under treatment at different times. Her girl is healthy looking, well nourished, and about sixteen years old.

Case 1. For your patient with lupus nonexedens, we should suggest the administration after meals of the triple arsenates with nuclein, alternating week and week about with arsenic iodide, gr.1-64. Give, before meals, iridin, rumicin, and xanthoxylin, each gr. 1-3, and every second or third night divided doses of podophyllin, leptandrin and bilein. We rather hesitate about prescribing local medication. We have not a clear enough idea of the conditions, but we have secured some remarkable results from the use of oil of thuja alone, which should be applied upon gauze after the area has been thoroughly cleansed with hydrogen-dioxide and boric-acid solutions. Another very efficacious ointment contains thuja, methylene-blue, and mercury bichloride in a vaseline and lanolin base.

If you possess or have access to a high-frequency apparatus, apply the vacuum-

electrode every second day. You must remember that you have to deal with the bacillus tuberculosis, and it is extremely difficult to control the infection. Some rather remarkable results have been secured with guaiacol (mixed with an equal part of glycerin) which should be applied twice daily. This may well be alternated with the thuja formula given above. In ulceration, nothing equals carbolic acid and ichthyol or carbenzol, followed after a week, or as soon as suppuration is controlled, with an ointment containing Biebrich's scarlet-red and tincture of benzoin applied to the epithilializing edge. Orthoform is preferable to cocaine as an application to control itching or pain.

Case 2. You must bear in mind that eczema is a protean disease and the remedies which prove of service in one case may fail entirely in another. A doctor some time ago complained that we mentioned such a multiplicity of remedies for eczema as to render it impossible for him to make a selection. A multitude of remedies are mentioned, for the simple reason that a multiplicity of differing conditions are encountered in various individuals. As you are aware, the remarkable results secured by the positive therapeutist are due largely to the fact that he does not treat a "named disease," that is to say, "eczema," or "pneumonia," or "typhoid," but familiarizes himself with the underlying disordered body-chemistry, and then selects his remedies with a clear conception of the pathologic conditions obtaining in the individual under observation.

In every instance, however, it is essential to eliminate freely and maintain therapeutic cleanliness of the intestine; the excretion of solids must be kept up to the standard and the normal output of urea maintained. Locally, the use of distillates of shale is nearly always indicated. Carbenzol and a good antiseptic oil in equal parts makes an ideal application in eczema. In some cases a sulphur solution proves promptly curative. Iridin, alnuin, and rumicin may be pushed to effect, together with the arsenates and nuclein. The three arsenates and arsenic sulphide may advantageously be alternated week and week about.

If you care to give a clearer idea of the clinical conditions observed and will send specimens of blood and urine to a pathologist, we shall be in better position to prescribe more positively. We are inclined to think you are correct and that the systemic toxemia is responsible for the eruption. Eliminate, Doctor—and do it thoroughly!

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Query 5774.—"Physiologic Effect of Potassium Bichromate. Dosage of Cantharidin." W. P. T., Illinois, asks: "What physiologic effect should one look for in giving potassium bichromate? How long can cantharidin be given without producing irritation?"

Potassium bichromate, in substance, is an irritant caustic and, in the proportion of 1 : 900, exerts a decidedly antiseptic action. Its internal action is nearly identical with that of potassium chlorate, but it is also an excellent emetic and mild alterative. The drug is used (in substance) locally, as a caustic for warts, corns, chancres, chancroids, mucous patches, etc.; in solution it is of value as a gargle in pharyngitis. The pain of gastric ulcer and some forms of dyspepsia is allayed by small doses, 1-12 to 1-6 grain, taken upon an empty stomach three times daily, being suitable. It should always be taken with at least two or three ounces of water.

Very small doses of potassium bichromate, say 1-64 to 1-128 grain, favorably influence aphonia and hoarseness due to excessive exercise of the vocal cords or resulting from acute coryza. You are, of course, familiar with the action of potassium chlorate.

Cantharidin should not be exhibited for any length of time, and rarely in larger doses than 1-1000 grain; in fact, 1-5000 grain is safer. As we have so frequently pointed out, cantharidin enhances the effect of other remedies. It is particularly useful in senile dribbling of the urine. Renal and vesical irritation, with dysuria and hematuria, have been observed after a few days' use of the drug in doses of gr. 1-500 every three hours. Cantharadin is distinctly a "small-dose" remedy, and to be given cautiously.

Query 5775.—"Rheumatoid Arthritis." H. C. K., Illinois, presents the following clinical data (with specimen of urine) and asks for therapeutic symptoms:

"Mrs. C., age 41, weight 108 pounds. (Former weight, 135.) Has had 'rheumatism' for fifteen years. None of her family ever had the disease. For the last two years it has taken on the arthritic form. Joints are all movable, except the knee-joints, which from long sitting have become to an extent (though not rigidly) ankylosed. Was able to walk until two years ago, when she had to keep off her feet for several months to obviate a constant dribbling (uterine) hemorrhage. Since then she has not walked. All fingers, two middle toes of each foot and the ankles and knees are affected. Is nervous, ill-tempered, and rests badly at night. Has spasmodic jerking of limbs, which causes pain, waking her up, and cannot go to sleep again. Joints became gradually affected—first hands, then feet, then knees. Says she had fever for a whole year when the disease first started, but six years afterward was able to walk and run, then gradually got worse again. There is but slight enlargement of the bony structures but much infiltration and tumefaction of the cartilaginous and soft structures around the joints. Joints are painful on motion, painless when at rest; inflammation is subacute. Two bowel actions daily. Kidneys have been irritable; amount of urine passed at a time was small, sometimes not more than a teaspoonful, but had to be voided, as she could not hold it. It has been scanty. The ankles are inclined to puff up, which may be due to some kidney trouble and not to the rheumatism. Heart is irritable; pulse, 100; no abnormal sounds; temperature, normal. Liver is normal in size, though tender on pressure. Tongue is broad and slightly white-coated. Digestion usually gives no trouble. Appetite is poor.

"Present treatment: My lady assistant gives full daily massage, particularly to the affected joints, with very moderate and careful flexion. For the urinary trouble, I give a formin (urotropin) tablet in a full glass; H-M-C modified, one tablet every hour or two till effect. (Takes them now only occasionally.) A solution of methyl salicylate in alcohol is applied freely and gently massaged into the joints at the times of the daily massage treatment. (She has taken so much of the salicylate and in such quantities that her stomach rebels against it.) Cold compresses of magnesium-sulphate solution are applied to the joints at all other times. (She prefers the cold compresses to warm ones.) Once a week I am giving a hypodermic injection of mixed vaccine containing streptococcus pyogenes, 30,000,000, and staphylococcus pyogenes aureus and staphylococcus pyogenes albus, of each 100,000,000.

"There has been general improvement, the patient picking up in flesh and displaying improved temper and disposition. She rests well all night, while the jerking has disappeared. Soreness in joints and pain on motion has very much diminished. Flexion of joints has materially improved. Urine now is from three to four pints in twenty-four hours; bladder no longer is irritable, and she passes a goodly quantity at each effort. Heart irritability still exists and puffiness of the ankles continues."

In this particular case you have unquestionably to deal with an old-standing nephritis and a marked acidosis. The "rheumatic" symptoms are to be expected under the circumstances. Your treatment is excellent. The prognosis, of course, is not favorable as regards cure. However, much can be done to render the patient's condition more tolerable.

We would suggest first a correction of the acidemia. Give calcium carbonate with colchicine three times a day, with a glass of barley water to which is added 1 dram of a good preparation of hydrangea. A small half teaspoonful of sodoxylin dry on the tongue an hour before meals, with a glass of water; papayotin and charcoal after food; the bile salt with pancreatin and sodium sulphocarbolate an hour later.

Apply to the joints guaiacol and methyl salicylate, equal parts, then compresses wrung out of a hot solution of epsom salt. Sponge the entire body with the same solution (one ounce to the quart) daily. Give a laxative saline draught every morning

upon rising. Wash out the bowel with decinormal salt solution twice a week. Diet carefully.

"Later: Great improvement has resulted from the use of methyl salicylate applied to the joints. Condition of the stomach will not admit of internal medication. I am inclined to change for a time to potassium iodide. Will you kindly suggest a formula embracing iodide of potassium and other substances which can be employed to advantage by rubbing into affected joints."

We note with pleasure the improvement in the case of rheumatic arthritis which followed the use of methyl salicylate. You cannot do much better (if you desire to use potassium iodide) than to inunct ointment of potassium iodide, 1-2 to 1 dram, daily for a week and then every other day. Compresses saturated with a solution of potassium iodide may be applied, and the effect of the drug secured by cataphoresis, provided you have a wall-plate or access to the galvanic current. We should not entirely drop the methyl salicylate and guaiacol. Why not alternate potassium iodide with these agents?

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QUERY 5776.—"Period of Immunity in Typhoid and Diphtheria." J. H. L., Indiana, has treated twenty-four cases of typhoid fever this season; six of that number are in his hands now. Very much malignancy in at least two-thirds of the cases is displayed. He says: "Seven miles away from here diphtheria is raging. How long does immunization holds good?"

There is no definite immunity from typhoid fever, although not everyone exposed to the infection contracts the disease, some individuals being more susceptible than others. Although one attack usually protects, two attacks in a person have been observed within a year; the writer treated one patient who had typhoid three times.

Of 2000 cases of enteric fever observed in the Hamburg General Hospital, only 14 persons were affected twice, and one three times. It is generally understood that the immunizing substances disappear from a blood a short time after recovery. Still, in most instances a relative immunity persists for a long time—occasionally for life. Animals which have once reacted to the typhoid infection react more quickly and produce a larger amount of immunizing substances when again infected.

The period of immunity following an attack of diphtheria is short, a second infection having been noted within two months after the first. The injection of 1000 normal antitoxin units usually produces immunity for three or four weeks, and the modern physician administers antitoxin at the earliest possible moment to those directly exposed to infection.

An important factor to be borne in mind, however, is that the injection of antitoxin for the purpose of immunizing an individual produces, after a lapse of some days, a condition whereby the patient becomes extraordinarily susceptible to the serum (anaphylaxis). It is therefore necessary to be careful when injecting antitoxin into a patient presenting the first symptoms of diphtheria. It should always be discovered whether an immunizing dose has already been received, and the date of such injection ascertained. Anaphylaxis does not take place if the doses are given every few hours or every other day for an indefinite period, but only when a long interval elapses between doses. For detailed information see any of the modern works.

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QUERY 5777.—"Milk in Breasts at Seventh Month of Gestation." J. B. K., Iowa, asks: "What is the significance of formation of milk in a woman's breast at about the sixth or seventh month of gestation, when death of the fetus can be absolutely excluded? What, if any, is the treatment in such a case? I can find nothing in my modern obstetrical works on the subject."

Milk appears in the breasts of pregnant women as early as the third month, and there is nothing abnormal whatever in its appearance in the mammary glands at the sixth or seventh month of gestation. Treatment is unnecessary. As a matter of fact, Doctor, you will probably find, upon examination, that the secretion is not true milk, but colostrum. However, the mammary glands frequently secrete milk during the later months of gestation.

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G. W. Carnrick Company, 34 Sullivan St., New York, N.Y.
Trypsogen for Diabetes and Malnutrition.
Chicago Pharmacal Co., Chicago, Ill.
Dermatone.
The Chas. N. Crittenton Co., 115 Fulton St., N. Y., N. Y.
Hydroleine—Colden's Liquid Beef Tonic.
The Cudahy Packing Company, South Omaha, Nebr.
Supracapsulin. Scientific literature and samples will be sent on request.
Cystogen Chemical Co., St. Louis, Mo.
Cystogen-Lithia.
Dioradin Company, New York, N. Y.
Dioradin for Tuberculosis.
Dios Chemical Co., St. Louis, Mo.
Dioviburnia—Neurosine—Germilétum.
The Etna Chemical Co., New York, N. Y.
Phenalgin—an ideal Antipyretic, Analgesic and Expectorant.
The Fellows Co., New York, N. Y.
Syr. Hypophos. Comp., Fellows.
Flint, Eaton & Co., Decatur, Ill.
Spirozol.
Gebauer Chemical Co., Cleveland, O.
Ethyl Chloride.
The Henry R. Gering Co., Omaha, Nebr.
Apiol-Ergot. 100 tablets, postpaid, on receipt of 25 cents in stamps.
J. M. Grosvenor & Co., Boston, Mass.
Konseals. Samples mailed on request.
The Hoffmann-LaRoche Chemical Works, N. Y., N. Y.
Chemicals, Alkaloids and Pharmaceutical Specialties of rare quality. Samples and literature on request.
The Iosaline Company, New York, N. Y.
Iosaline. A sufficient amount for a clinical test sent to physicians on request.
Alex. Krembs, Jr., Drug Co., Stevens Point, Wis.
Tincture Helianthus Compound.
Samples and literature on request.
Kress & Owen Company, New York, N. Y.
Glyco-Thymoline for catarrhal conditions.
Lambert Pharmacal Co., St. Louis, Mo.
Listerine. A 128-page descriptive booklet may be had upon application.
Laxol, New York, N. Y.
Samples upon request.
The Malthie Chemical Co., Newark, N. J.
Maltbie's Calcium Creosote. Price List on request.
J. Judd Mason & Co., New York, N. Y.
Crolasin—pure castor oil.
Merck & Company, New York, N. Y.
Manufacturing Chemists.
Micajah & Company, Warren, Pa.
Micajah's Wafers. Samples and literature free on request.
H. K. Mulford Co., Philadelphia, Pa.
Mulford's Antitoxin.
McKesson & Robbins, New York, N. Y.
Calox Tooth Powder.
A sample package sent to any physician on receipt of professional card.
National Vaccine & Antitoxin Institute, Washington, D. C.
National Diphtheria Antitoxin.
New York Pharmaceutical Co., Bedford Springs, Bedford, Mass.
Hayden's Viburnum Compound.
The Norwich Pharmacal Co., Norwich, N. Y.
Unguentine. Samples sent free on request.
Organic Chemical Mfg. Co., Fort Washington, Pa
A-F-Sal—A-S-Phen.
Parke, Davis & Co., Detroit, Mich.
Manufacturing Chemists.
Arthur Peter & Co., Louisville, Ky.
Syrupus Roborans—Peter's Peptic Essence.
Samples sent upon application.
Pneumo-Phthysine Chemical Co., Chicago, Ill.
Pneumo-Phthysine.
Prompt and gratifying results follow its use in pneumonia.
Pond's Extract Co., New York, N. Y.
Pond's Extract.
The Purdue Frederick Co., New York, N. Y.
Gray's Glycerine Tonic Comp.—Hyperol. Send for samples.
Regent Drug Co., Detroit, Mich.
Suppos Prostans.
The Reinschild Chemical Co., New York, N. Y.
Regulin—a cure for constipation.
Sample and literature on request.
Resor-Bisnol Chemical Co., Baltimore, Md.
Resor-Bisnol. Interesting brochure and samples will be sent on application.
Russell & Lawrie, Tarrytown, N. Y.
Lubraseptic.
Schering & Glatz, New York, N. Y.
Probilin Pills—Arhovin Capsules—Anusol Suppositories.
Literature sent on request.
Schieffelin & Co., New York, N. Y.
Neuronidia. Send for literature.
Dr. G. H. Sherman, 419 St. Aubin Ave., Detroit, Mich.
Sherman's Vaccines.
Martin H. Smith Co., New York, N. Y.
Ergoapiol. Samples and literature sent on request.
Strong, Cobb & Company, Cleveland, O.
Echitone. Send for samples.
Varicocene Co., Battle Creek, Ia.
Varicocene for varicose veins and leg ulcers.
Weightman Pharmacal Co., New York, N. Y.
Oleomangan, 16-oz. bottle sent to any physician who will pay express charges.
A. Wulfing & Co., New York, N. Y.
Formamint Tablets.

MEDICATED AND ANTISEPTIC SOAPS

Resinol Chemical Co., Baltimore, Md.
Resinol Ointment—Resinol Soap.

MISCELLANEOUS

The Abbott Press, Chicago, Ill.
High-grade Stationery for Physicians.
Chandlee & Chandlee, Washington, D. C.
Patent Attorneys.
Chicago Laboratory, Chicago, Ill.
Susanna Cocroft, 624 Michigan Ave., Chicago.
Remedial exercises for women.
Justrite Mfg. Co., Chicago, Ill.
Justrite Sanitary Waste pail.
Kimble Glass Co., Chicago, Ill.
Glass Ampoules.
Ramsdell Drug Co., New York, N. Y.
Sulphur Cream. Send for booklet and sample.
Remoh Jewelry Co., St. Louis, Mo.
Remoh Gems.
Sen Sen Chiclet Co., New York, N. Y.
Spaulding & Merrick, Chicago, Ill.
Velvet Tobacco.
Clifford D. Stone, Toledo, O.
Engravotyped Stationery.
The Yankee Co., Utica, N. Y.
"Sweet Babee" Nursing Bottle.

PHYSICIANS' COATS AND HOSPITAL UNIFORMS

Weissfeld Brothers, New York, N. Y.
Catalog and samples free.

PRACTICES FOR SALE—MEDICAL ASSISTANTS, etc.

F. V. Kniest, Omaha, Nebr.
The Medical Echo, Lynn, Mass.

SANITARIA AND INSTITUTES

Dr. Case's Sanitarium, Oakland, Cal.
Alcohol and Drug Addictions.
Dr. McKay's Sanitarium, Denver, Colo.
Drugs and Liquor Habits.
The Mudlavia Bath, Kramer, Ind.
Oconomowoc Health Resort, Oconomowoc, Wis.
Oppenheimer Institute, New York, N. Y.
Oppenheimer Treatment for Alcoholism.
Pearson Home, Bonner Road, Baltimore, Md.
Drs. Pettey & Wallace's Sanitarium, Memphis, Tenn.
Alcohol and Drug Addictions; Nervous & Mental Diseases.
Anna Ross Sanitarium, Chicago, Ill.
Maternity Home.
The Telfair Sanitarium, Greensboro, N. C.
Union Park Maternity Home, 1522 Carroll Ave., Chicago.

SCHOOLS AND COLLEGES

American Medical College, St. Louis, Mo.
Dr. H. C. Bennett, Lima, O.
Chicago Policlinic & Hospital, Chicago, Ill.
Pennsylvania Orthopaedic Institute, Philadelphia, Pa.
Post-Graduate Medical School, Chicago, Ill.
R. G. Schroth, M. D., Chicago, Ill.
Schroth Classes for State Board Examinations.
South Bend College of Optics, South Bend, Ind.

Grape-Nuts

For

BABIES

In many cases of infantile mal-nutrition, where the usual list of foods known to the physician and nurse has proved wanting, Grape-Nuts, prepared as shown below, has produced most happy results.

Made of wheat and barley, this well-known food contains all the food elements of these cereals, including the "vital Phosphates" (grown in the grain) necessary to the elaboration of the body cells.

The food is also sterilized by long baking and absolutely sanitary handling throughout its manufacture.

TO PREPARE GRAPE-NUTS FOR BABIES

Take one to three teaspoonfuls Grape-Nuts, according to age of child, and add to half a teacup of boiling (sterilized) water.

Let stand five or six minutes, stirring occasionally. Then pour off the liquid and add a like amount of warm top milk, and sweeten with granulated sugar.

The elements in the cereal not only "modify" the milk but add to the nutrition of the child.

This has been known to remain on infants' stomachs when all other food preparations were rejected.

The "Clinical Record" for the Physician's beside use will be sent, prepaid to any physician, or nurse, who has not already received one. Also a box of samples of Postum, Grape-Nuts and PostToasties.

Postum Cereal Co., Ltd., Battle Creek, Mich., U. S. A.

SUPPORTERS, ELASTIC STOCKINGS, BANDAGES AND TRUSSES

FRANK S. BETZ CO., Hammond, Ind.
EMPIRE MFG. CO. Lockport, N. Y.
Empire Abdominal Supporter—Empire Elastic Bandage—Empire Umbilical Truss.
PLAPAO LABORATORIES, St. Louis, Mo.
Stuart's Plas-tr-pads.
POMEROY COMPANY, New York, N. Y.
Abdominal Supporters, Elastic Stockings, Orthopedic Apparatus, etc.
KATHERINE L. STORM, M. D., Philadelphia, Pa.
Storm Binder and Abdominal Supporter.
Illustrated folder on request.

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FRANK S. BETZ CO., Hammond, Ind.
THE J. F. HARTZ COMPANY, Detroit, Mich.
Surgical Instruments and Supplies.
HUSTON BROTHERS CO., Chicago, Ill.
Surgical and Electrical Instruments.
THE JAECKH MANUFACTURING CO., Cincinnati, O.
Gold Medal Spraying and Nebulizing Outfit.
JOHNSON & JOHNSON, New Brunswick, N. J.
MARVEL COMPANY, New York, N. Y.
Marvel "Whirling Spray" Syringe. Literature on request.
MYERS MANUFACTURING CO., Camden, N. J.
Myers' Patent Tin Box. Samples on request.
SHARP & SMITH, Chicago, Ill.
SURGICAL SUPPLY IMPORTING CO., New York, N. Y.
Bender Ideal Bandage.
C. J. TAGLIABUE MFG. CO., New York, N. Y.
Cardiac Sphygmomanometer.
TAYLOR INSTRUMENT COMPANIES, Rochester, N. Y.
Dr. Rogers' Tycos Sphygmomanometer.
WESTERN SUPPLY CO., Canton, O.
Hypodermic Syringes.
MAX WOCHER & SON CO., Cincinnati, O.
Salvarsan Apparatus.

TYPEWRITERS

AMERICAN WRITING MACHINE CO., New York, N. Y.
TYPEWRITER DISTRIBUTING SYNDICATE, Chicago, Ill.
Oliver Typewriter.

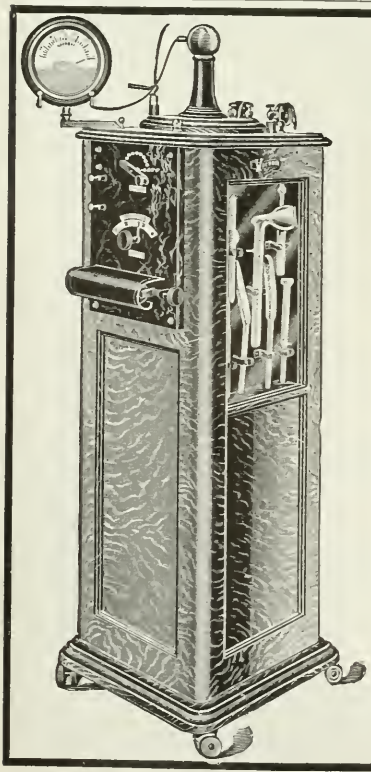
IODIZED LIME IN THE WINTER DISEASES

If the task were imposed upon us of saying what single remedy, above all others, is the most useful in winter, we should say—iodized calcium. In croup, in grip, in chronic "coughs and colds," in pneumonia and in other respiratory ailments, it is a remedy that the doctor, practising in these northern latitudes, cannot afford to overlook.

In croup it is easily the master-remedy. It has saved thousands of babies in years past. When summoned in the dead of night, by anxious parents, the doctor feels equal to the emergency, with a supply of tablets in his medicine case. Almost magically does iodized lime break the strangle hold of croup, bringing rest and easy breathing before morning.

In pneumonia there is no other remedy so useful. Using iodized lime as a basis of the treatment, the doctor is assured of the very best possible results; he can cut down the mortality very materially, losing, in fact, only the exceptional case in which extreme old age or alcoholism stands in the way of recovery. It furnishes, in one dose, both iodine and calcium; the latter element, we now know, plays a leading role in activating phagocytosis.

That we have such an effective weapon against pneumonia is fortunate. The disease has become a scourge in these northern latitudes to the extent few realize. It kills more people than tuberculosis. A study of the actual causes of death, in the registration area of our country, embracing one-half the population, shows that out of 100,000 people, 148 die of this disease. And, according to the health reports of the large cities, 2,360 people died from pneumonia in a single month last winter.



High Frequency Auto-Condensation

REDUCES HIGH BLOOD PRESSURE WITHOUT PRODUCING HEART DEPRESSION

FURTHERMORE the relief is more certain and the fall more permanent

THE VICTOR No. 7 HIGH FREQUENCY OUTFIT is a late product of our factory and from it is obtained the various high frequency currents and ultra-violet rays; X-rays are also available for all therapeutic and light radiographic work. This apparatus is especially recommended for auto-condensation treatments, as sufficient current is at your disposal for the most profound constitutional effects.

Price, complete as shown, less meter, arranged for alternating current - $190.00

Hot Wire Milliamperemeter, extra - 30.00

Full particulars given in our new X-Ray Catalog (Fifth edition)

Victor Electric Co.

236 South Robey Street, CHICAGO

Successful for Years Because They Give Best Results

THE preparations below are just a few of our leading specialties. They are no experiment; physicians, for years, have found them valuable aids to successful practice. They are really but a small part of our business, as we make about everything the physician needs, except surgical instruments. We have been doing this for a quarter century—growing every year—and pride ourselves on the superior quality of our pills, tablets, fluids, and other standard pharmaceuticals.

Write for our 1910 Catalogue and price list, and see how well we can serve you.

Unguentine

"THE FIRST THOUGHT IN BURNS"

This is a non-irritating, antiseptic and restorative surgical ointment, with the widest possible range of usefulness.

Physicians everywhere endorse it as the ideal dressing for all surface lesions and wherever external inflammation is present.

In collapsible tubes, for prescriptions or your handbag; in 1- or 5-lb. cans, for office use.

Unguentine is not only the "First Thought in Burns," scalds and like injuries but is equally effective as a soothing, healing dressing for bedsores, ulcers, abrasions, lacerations, and all wounds; in surgical cases, X-ray dermatitis, pruritus, psoriasis, herpes, and all inflammatory skin diseases.

ADJUNCTS OF UNGUENTINE

contain the astringent and healing agents of Unguentine combined with a suitable base and such added medicaments as are indicated for each specific treatment.

1. **UNGUENTINE CONES** (Rectal) for internal hemorrhoids.
2. **UNGUENTINE CRAYONS** (Urethral) for gonorrhea and gleet.
3. **RHINALUM WAFERS** (Nasal) for nasal catarrh.
4. **UNGUENTINE PENCILS** (Intra-uterine) for uterine disease.
5. **UNGUENTINE PESSARIES** (Vaginal) for leucorrhea, etc.
6. **UNGUENTINE SOAP** (Dermal) an antiseptic detergent.

Write Us for Free Sample of Unguentine or Any of its Adjuncts

THE NORWICH PHARMACAL COMPANY

MANUFACTURING PHARMACISTS

Dept. "X" NORWICH, NEW YORK

There are many grades of iodized lime—some of them good, some worthless. Our readers, to be sure of getting results should buy the article known by the brand-name of Calcidin. This is put out by The Abbott Alkaloidal Co., of Chicago.

THE ZIPP

While every physician and nurse is more or less adept in shaking down the mercury of a clinical thermometer, each one welcomes the relief from this nuisance which is afforded by the Zipp case.

The Zipp us not only the most convenient and most sanitary clinical thermometer case made, but it contains a patented device for instantly forcing the mercury back to the bulb, a few turns of the finger being all that is necessary.

The Zipp case is supplied only with the best grades of Tagliabue fever or clinical thermometers.

SELF-WEIGHING SCALES

This scale will show your weight in a second by just stepping on it and looking into the mirror below. The great device for weighing oneself without having to resort to large scales generally in use. The scale is made in such a manner that all one has to do is to step on the top of it and by looking down into the mirror a person can see his own weight. It weighs as low as one pound and as high as two hundred and seventy pounds, being about the size of a small foot stool. Length 10 3-4 inches, width 7 1-8 inches, depth 8 inches, weight, eighteen pounds. It is a very convenient scale for bath rooms and household purposes, on account of it taking up such a small space. Price, $8. Sharp and Smith, 103 N. Wabash Ave., Chicago, Ill.

Hydroleine

An ethical emulsion of cod-liver oil without medicinal admixture.

The manner in which the purest and freshest cod-liver oil is emulsified in Hydroleine, makes it easily digestible. Furthermore, Hydroleine does not offend the taste. Its nutty and distinctive flavor is liked by the most delicate palate, and children take it willingly.

In practice it is markedly utilizable, and is reliably stable. It is effective as a food-fat and possesses superior characteristics.

In Long-continued Professional Use Hydroleine Has Proved Its Dependability

THE CHARLES N. CRITTENTON CO.
115 Fulton Street, New York

Sold by druggists

Sample sent to physicians on request.

During and After the Acute Diseases of Infancy

such as **measles, scarlet fever, diphtheria** and **whooping cough,** there is no form of nutrient better adapted to maintaining the nutritional balance, preserving the vitality and promoting a rapid and satisfactory convalescence than

Nestlé's Food

Made from the most carefully selected cereals, and pure, rich, cow's milk, this highly nutritious food supplies the food elements required by the body, in a form that insures their ready digestion and assimilation with minimum tax on the economy. Thus the vitality of the body is not only conserved, but materially increased, Convalescence is shortened, and with the bodily nutrition raised to the highest point, complications and sequelae become much less frequent.

For forty years, Nestlé's Food has been employed by countless discriminating medical men as the ideal substitute for mother's milk, and the uniform results obtained in sickness as well as in health, tell in no uncertain way of its exceptional dietetic value. Babies thrive on Nestlé's Food—that tells the story.

Samples on Request

HENRI NESTLÉ
99 CHAMBERS ST., NEW YORK, N. Y.

LISTERINE

Listerine is an efficient, non-toxic antiseptic of accurately determined and uniform antiseptic power, prepared in a form convenient for immediate use.

Composed of volatile and non-volatile substances, Listerine is a balsamic antiseptic, refreshing in its application, lasting in its effect.

It is a saturated solution of boric acid, reinforced by the antiseptic properties of ozoniferous oils.

After the volatile constituents have evaporated, a film of boric acid remains evenly distributed upon the surfaces to which Listerine has been applied.

There is no possibility of poisonous effect through the absorption of Listerine.

Listerine is unirritating, even when applied to the most delicate tissues; in its full strength it does not coagulate serous albumen.

For those purposes wherein a poisonous or corrosive disinfectant can not be safely employed, Listerine is the most acceptable antiseptic for a physician's prescription.

Listerine is particularly useful in the treatment of abnormal conditions of the mucosa, and admirably suited for a wash, gargle or douche in catarrhal conditions of the nose and throat.

In proper dilution, Listerine may be freely and continuously used without prejudicial effect, either by injection or spray, in all the natural cavities of the body.

Administered internally, Listerine is promptly effective in arresting the excessive fermentation of the contents of the stomach.

In the treatment of summer complaints of infants and children, Listerine is extensively prescribed in doses of 10 drops to a teaspoonful.

In febrile conditions, nothing is comparable to Listerine as a mouth wash; two or three drachms to four ounces of water.

"The Inhibitory Action of Listerine," 128 pages descriptive of the antiseptic, may be had upon application to the manufacturers,

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LAMBERT PHARMACAL COMPANY,

Locust and Twenty-First Streets ST. LOUIS, MISSOURI

LUBRASEPTIC

The wide range of usefulness of this product should make it particularly appeal to every doctor, whether he does a general practice or specializes in surgery, gynecology, obstetrics, proctology or genitourinary work. To facilitate the easy passage of an instrument is the province of Lubraseptic. It is a perfect lubricant, and can be used with equal satisfaction in making digital examinations in vaginal or rectal work. The base of Lubraseptic is selected Irish chondrus moss, combined with boric acid and the proper amount of formaldehyde. It is non-irritating, non-greasy, does not stain the clothing and is freely soluble in water. A full-size tube will be sent you gratis, post-paid, by addressing Russell & Lawrie, Tarrytown, N. Y. Kindly mention this journal.

THE Birtman Electric Co., 12–18 South Clinton Street, Chicago, Ill., has perfected a Portable Ozone machine. This apparatus does not weigh over 37 pounds and furnishes an ample supply of purified Ozone to the patient. The apparatus may also be instantly adjusted for the purpose of ozonizing sick rooms, bed rooms, etc.

Ozone has proven itself a powerful curative agent in tuberculosis, asthma, hay fever, nervous diseases, in affections of the respiratory tract or in diseases where impure blood is the fault.

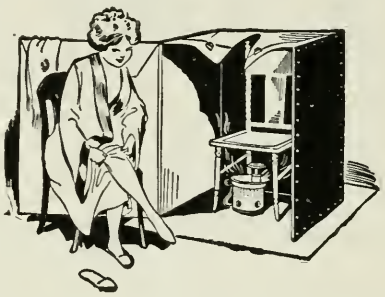
The uses to which Ozone has been successfully applied are many, and the field for legitimate speculation with respect to its further application in the sciences and arts is virtually boundless.

The Portable Ozone apparatus of the Birtman Co. commends itself by reason of its compactness, its efficiency and its low price.

ROBINSON'S BATH CABINET

Doubtless a great many physicians are familiar, and have probably used with success, a thermal bath cabinet, in connection with their practice, some time during the past.

We call the attention of our subscribers to the offer made by the Robinson Bath Cabinet Co., of



Toledo, Ohio, in which they agree to send to every physician, without cost, one of their bath cabinets; and we would advise every physician to take advantage of this offer, which of course is made for advertising purposes, and to call the physician's attention to the valuable assistance that the bath cabinet can render, together with the proper medications to be used in the vapor cup, which in turn will be absorbed by the pores of the skin in cases where it would not be advisable to have the medicine pass through the stomach. The absorption treatment is being used more every day.

We believe that the cabinet will be a great aid to every physician, many times.

THE "STORM" BINDER AND ABDOMINAL SUPPORTER

WOMAN'S BELT—SIDE VIEW

(PATENTED)

Adapted to Use of Men, Women and Children

MAN'S BELT—FRONT VIEW

No whalebones, no rubber elastic —washable as underwear. Suitable for non-operative and post-operative cases. Comfortable for sofa and bed wear and athletic exercises. A practical relief for visceroptosis.

Send for new folder and testimonials. General mail orders filled at Philadelphia only—within twenty-four hours on receipt of price.

KATHERINE L. STORM, M. D.

1541 DIAMOND ST. PHILADELPHIA

RESULTS
Their Recommendation

Unguentum Resinol is a skilfully made and chemically pure Ointment. Its therapeutic properties are decidedly healing, nutrient and antiseptic. The consistence and pliability of this ointment commend it especially as an application of exceptional merit in all eruptions and irritations of the skin. It is prescribed daily by leading physicians throughout the world for

ECZEMA HERPES, SEBORRHOEA, ERYTHEMA, IMPETIGO, TINEA, ERUPTION OF POISON IVY, PILES, BURNS, SORES AND MINOR WOUNDS, AND ABRASIONS OF THE SKIN.

It allays the itching of **Pruritus Ani** instantaneously. Its utility as a specific for this trouble is recognized by practitioners of every school and every nationality.

Resinol Soap, containing in a modified way the same medication, is most **delightful for the toilet and bath,** and is the only soap that should be used for bathing persons subject to, or affected by, skin troubles.

Resinol (medicated) Shaving Stick also contains the healing and antiseptic virtues that have made Resinol Ointment so famous. Its free, creamy lather soothes and prevents the irritation incident to shaving. **It is a real luxury and comfort to self-shavers.**

These preparations are for sale in all leading drug stores in every country of the world.

Great Britain Branch:
97 New Oxford Street
LONDON, W. C.

Resinol Chemical Co.
BALTIMORE, MD.

Australasian Agents
Charles Markell & Co.
SYDNEY, N. S. W.

The cabinet company also is putting out a folding water bath, that is, a very neat, compact device, to be used where a person has no bath room.

The company wishes to state that it will be pleased to send its literature to any one requesting the same.

UNCLE SAM ORDERS STEAM AUTOMOBILES

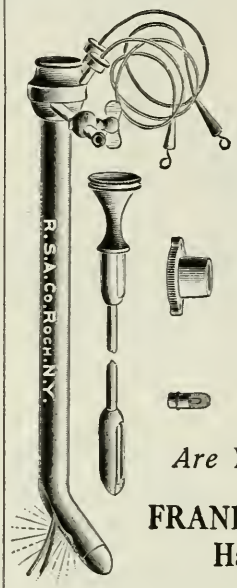
The United States Government recently ordered from the Stanley Motor Carriage Co., Newton, Mass., four Stanley steam automobiles for government use in the Phillipine Islands.

The specification details received by the Stanley Co. indicate the thoroughness of the Government experts. That these cars are to be made capable of giving extended and strenuous service on as economical a basis as possible is clear from one item of the equipment specifications which reads "that each car must be fully equipped with a set of Truffault-Hartford Shock Absorbers."

This equipment, besides being on many popular gasoline and electric cars, was used by 90 per cent of the winners of the important racing and endurance contests in the last six years. And the winner of the "Round-the World" New York to Paris Race was fitted with this equipment. It is more than likely that the Government experts had this fact in mind in making their selection of the equipment to be used on the Stanley cars.

ADVERTISING forms for the March issue of CLINICAL MEDICINE close February 15th.

Betz Buys Again



Offers Bigger Bargains Than Ever Before

We have taken over the entire plant, stock and machinery of the Rochester Surgical Appliance Company. Over 5,000 assorted electrically lighted diagnostic instruments to go at prices never before heard of.

Are You Interested?

FRANK S. BETZ CO., Hammond, Ind.

Send for prices mentioning The American Journal of Clinical Medicine, Ravenswood, Chicago.

STRUMOUS DISORDERS

with their train of symptoms pointing to faulty or perverted metabolism, demand remedies capable of readjusting normal cell processes. Of these

IODIA

is strongly suggested as the standard tonic-alterative. Clinical experience, extending over many years, has shown that it possesses striking individuality as a reliable means to the end of stimulating cellular functions, promoting the elimination of waste products and re-establishing metabolic activity.

IODIA, therefore, has a well-defined field of application in **Syphilitic, Scrofulous** and **Cutaneous Diseases, Rheumatic** and **Gouty Ailments,** and wherever a reliable altero-reconstructive is required.

BATTLE & CO.
(ESTABLISHED 1875)
LONDON ST. LOUIS PARIS

Welch's

The National Drink

Grape Juice

A Tonic-Food for Run-Down Men, Women and Children

PHYSICIANS prescribe WELCH'S for the up-building of their convalescent patients, and for those whose powers of assimilation are weakened.

It is a splendid tonic and liquid food for children showing salt deficiency, as in cachectic affections, scurvy, digestive disturbances, and impoverished nervous systems.

WELCH'S is prescribed with confidence, not only in its results, but in its perfect purity. It is pressed from the very finest clusters of Concords grown in the Chautauqua belt. We secure them at the time of richest ripeness; our process of pressing the juice is quick, cleanly and scientific. There is nothing in the bottle but the pure juice of the grape.

The fresh, fruity flavor and delicious aroma of the ripe grapes which characterize WELCH'S make instant appeal to the invalid.

Sold by all leading dealers. Four-ounce bottle by mail 6 cents. Sample pint, express prepaid, 25 cents. Literature of interest to all physicians, free.

The Welch Grape Juice Company
Westfield, N. Y.

THE FUNDAMENTAL NEEDS OF THE BODY

As the recent graduate in medicine enters upon his life work he very soon finds that certain fundamental needs of the body form the main indications for practically all medical treatment. Among these needs, the one which will appear most often is the necessity for restoring or reinforcing the vital forces of the organism. No matter what the disease may be, one of the most prominent as well as constant symptoms is inanition or debility. This is the essential result of the functional derangements which attend every pathologic process, and no complete or perfect recovery therefrom can be expected until the vitality has been materially increased, the various functions regulated and restored, and the physiologic balance of the whole body reestablished.

The great problem for the conscientious physician is how to accomplish the foregoing in the shortest time and with the greatest surety of permanence. At the outset he will see that the body is trying to return to a state of health, that Nature however enfeebled and weakened is doing her best to overcome the baneful forces of disease and restore normal conditions. With this so evident, what better course than to support and aid to the fullest Nature's efforts toward recuperation?

Certainly no line of treatment is more prompt and positive in its effects and if the clinical results are any criterion the ideal way of overcoming physical debility and inanition is to aid and reinforce the natural reconstructives and restorative forces.

This is distinctively the mission of the tonics, and the young physician who seeks a remedy of this class that will serve him faithfully and well should give Gray's Glycerine Tonic Comp. a careful trial.

In all the various conditions calling for the use of a remedy to act, not as a whip or a lash, but as a support, an aid to and a reinforcer of vital processes, the practitioner will find Gray's Glycerine Tonic Comp. thoroughly dependable. It has no contra-indications like so many reconstructive measures and can be freely used at all seasons, for patients of all ages, and under all conditions. In the treatment of the very young or the very old it will prove equally effective and produce the same desirable effects in sharpening the appetite, improving digestion, increasing assimilation and promoting elimination. Under its systematic administration the nutrition is improved, debility disappears and the vitality of the whole body is substantially raised.

An interesting booklet will be sent by addressing The Purdue Frederick Co., 298 Broadway, New York.

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FOR THE TREATMENT OF

Drug Addictions and Alcoholism

Avoidance of shock and suffering enables us to treat safely and successfully those extreme cases of morphinism that from long continued heavy doses are in poor physical condition.

BONNER ROAD, - BALTIMORE, MD.

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The "1900" Electric Washer

DOCTOR, we want you to investigate this health-conservtng Electric Washing Machine. It saves labor, time and the endless annoyance of handling the unusually large washings incidental to the sick room, the hospital and the sanitarium.

This "Electric Washer" is not a new or experimental device. It is simply another style of the popular "1900" Washer designed to handle from 10 to 12 sheets which the regular machine cannot accommodate.

We Ask No Cash in Advance with our offer. You try the machine first and then pay or return it.

When sending for the outfit be sure to give the following information:

Is the current direct or alternating?

What is the number of volts?

If alternating, what is the number of cycles?

If you wish to ask any questions about our outfit we will be glad to give you the benefit of any information possible. WRITE TO-DAY.

THE "1900" WASHER COMPANY, Binghamton, N. Y.

IT is just as much your business, Doctor, to prescribe (or proscribe) the corsets worn by your lady patients as it is to regulate their diet or advise their hygiene.

The right kind of a corset is not only an essential to the health, but a prophylactor of notable value; and a factor of much importance in the successful treatment of many unpleasant ailments.

The Crosby Corset

is the corset you should recommend because in its manufacture consideration is first given to health. As an abdominal supporter it has no equal. It does not slip up and down and get out of place. There are no perineal straps to chafe. It is adjusted in front where the adjustment is needed, and is easily put on and taken off. Women like to wear it because it gives a symmetrical figure.

As a matter of economy the patient gets two garments in one—an excellent corset and supporter for the price of an ordinary supporter.

—But be sure that it's a CROSBY. No other front-lace corset is "just as good."

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Santyl is the neutral salicylic ester of santalol, and is obtained by combining best East Indian sandalwood oil with salicylic acid to form an ester, just as in the case of salol. Santyl occurs as a yellowish oil, having a faint balsamic odor and taste. It contains approximately 40 percent salicylic acid and 60 percent of santalol. Santyl possesses the full therapeutic action of sandalwood oil, which was formerly preferred as an adjunct to the external treatment of gonorrhea. It differs from sandalwood oil, however, in that it does not give rise to irritation of the stomach, the intestines, or the kidneys. Santyl passes the stomach unchanged, and is slowly split up in the intestines into its constituents, santalol and salicylic acid. Because of the slow liberation of santalol, it produces no irritation of the gastrointestinal tract or of the kidneys and urinary passages, and no unpleasant odor or eructations. Santyl is superior to sandalwood oil as anesthetic and disinfectant, owing to the presence of the salicylic acid radical (beneficial action in cystitis). It is indicated in acute gonorrhea and its complications, particularly posterior urethritis, chronic gonorrhea with acute exacerbation, cystitis, epididymitis, prostatitis, and posterior gonorrheic disturbances, generally as an adjunct to local treatment. More recently Santyl has also been recommended for use in gynecological practice, where it is indicated as an anesthetic to the irritable bladder, in the dysuria and vesical tenesmus, no matter whether due to an affection of the vesical membrane or purely reflex in character.

Dose: 20 drops or 3 capsules, 3 to 4 times a day.

For full literature or samples address, Knoll & Co., 108 Fulton St., New York.

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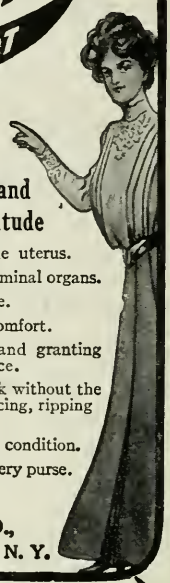

Wins Doctors' Approval and Expectant Mothers' Gratitude

By eliminating constriction above the uterus.
By granting perfect freedom to the abdominal organs.
By rendering Edema or Varix improbable.
By its modish appearance and absolute comfort.
By setting at ease the patient's mind and granting her confidence in her normal appearance.
It always drapes evenly in front and back without the aid of bulky draw-strings—without lacing, ripping or basting.
It harmlessly but effectively conceals the condition.
Made in all colors and in fabrics to suit every purse.
Write for booklet.

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To protect your patient against disappointment, we would state that the FINE-FORM MATERNITY SKIRT is the only Maternity Skirt on the market, as it is the only skirt which can always be made to drape evenly front and back—all substitutes offered will rise in front during development—a fault so repulsive to every woman of refined tastes. No pattern can be purchased anywhere for this garment. Its special features are protected by patents.

SCIENTIFIC FOOD PRESCRIBING

is not the simple feeding of a furnace with fuel. NITROGEN and PHOSPHORUS are *Food* essentials, because they are cell necessities. Tissue building depends upon cell activity.

Sanatogen
THE FOOD-TONIC

is a definite chemical compound—Sodium Glycero-phosphate of Casein—in soluble form, therefore easily absorbed, and partaking of the nature of a therapeutic food. It affects nutrition directly by arousing metabolic activity. It contains no sugar, starch or purin basis. It causes gain in flesh, strength and vigor of brain and body. Being almost tasteless, it can be added to other food or drink.

Samples and literature to physicians on request.
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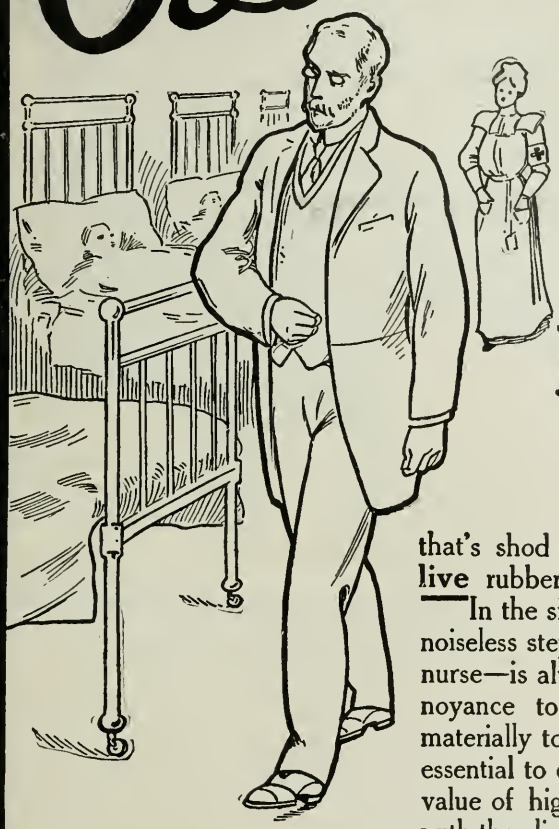

Lightly falls the Foot

that's shod with an **O'Sullivan Heel** of new **live** rubber."

In the sick room or hospital ward, the light, noiseless step of the conscientious physician—or nurse—is always grateful, since it saves infinite annoyance to sensitive patients and contributes materially to the calm and quiet that is often so essential to convalescence and recovery. But the value of high-grade rubber heels does not stop with the elimination of needless noise. Experience has further shown that their use not only decreases fatigue, but by reducing the jar occasioned by walking on hard floors, pavements and side walks, avoids the otherwise inevitable shock to the sensitive spinal structures.

There is, therefore, a sound scientific principle back of the use of rubber heels. Medical men have been quick to recognize their hygienic advantages and it is rare to find a painstaking physician to-day who does not use and recommend rubber heels.

It is needless to go into detail concerning the superiority of **O'Sullivan's Rubber Heels,** for their quality, wearing value and remarkable resiliency are matters of common knowledge; made from the highest grade of new **live** rubber they are to countless people an indispensable aid in the promotion of comfort, the prevention of fatigue and the preservation of health.

THE O'SULLIVAN RUBBER CO., 131 Hudson Street, New York

AN OFFER TO UP-TO-DATE PHYSICIANS TO ACQUIRE A MODERN TYPEWRITER ON MOST LIBERAL TERMS

The physician's handwriting has been frequently the subject of ridicule, but when we consider the strain under which the busy practitioner does his work, it is not surprising that this is so. Many up-to-date physicians have obviated this difficulty by adopting the typewriter, which combines legibility with speed. Its advantages are manifold—the type-written prescription requires no tedious effort in deciphering by the druggist, a bill sent out looks more business-like and will receive greater attention, a letter or contribution to a medical journal is much more likely to receive the consideration it deserves, by showing that the writer is abreast of the times.

The greatest deterrent in the acquisition of a typewriter has been the item of expense. Therefore it affords us much pleasure to call the attention of our readers to the special offer, on the most liberal terms, of The Typewriter Distributing Syndicate, 159 N. State St., Chicago, Ill.

"They put the world's best typewriter right in your office or home on *free trial*. Use it five days; practice on it; write your regular correspondence on it; take our say so and discover, once for all, whether you really want a first-class typewriter. Then, either send it back—at our expense—or merely remit us $5 and a month later $5 more, until the $50 is paid."

Physicians in need of one of the finest machines that has ever been devised, the famous regular No. 3 model Oliver, are urged to carefully read the advertisement in this issue and take advantage of the splendid offer therein described.

"The Huston Instrument Co., of Chicago, surely deserve credit for the very great success that they are achieving with their various new instruments, especially with their Akouophone, Bairds Air Cushion outfit and Biers Erectruss. The Akouophone is by far the best stethoscopic instrument that we have ever seen. The Air Cushion surely does give comfort and satisfaction to all patients suffering from uterine displacement, and the Biers Erectruss is spoken of very highly by many G-U specialists throughout the country. It is not often we can speak so highly of such specialties, but we surely do recommend our readers who may be interested to write to this firm for full particulars. We understand that they are willing to allow a free trial."

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Every Physician and Pathologist
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Elements of Physiological Psychology

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A Treatise of the Activities and Nature of the Mind
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CONDENSED MILK

Has no Equal
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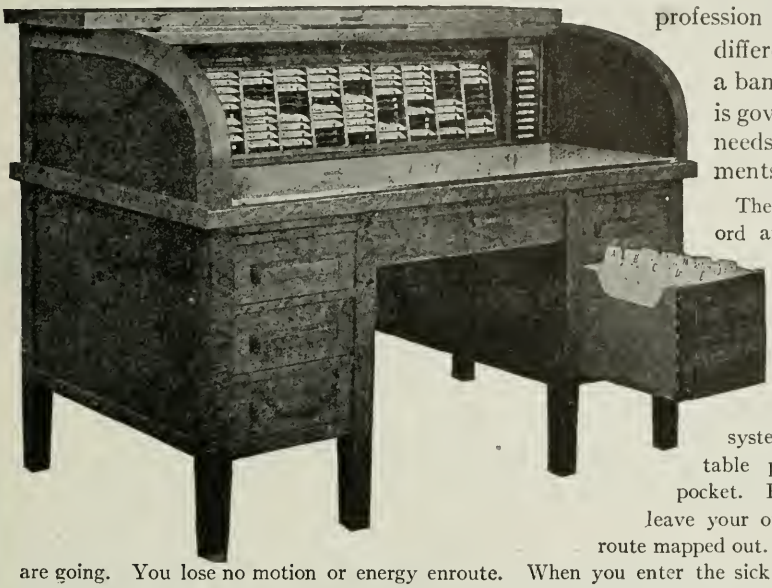
More Time—More Money—Less Effort—

DOCTOR, there is no use attempting to adapt any other system to your needs. Your profession is fundamentally different from that of a bank or a store. It is governed by different needs—specific requirements.



The American Case Record and System for Physicians and Surgeons was originated and perfected to meet your professional demands.

It is a one-writing system — with the portable part always in your pocket. From the time you leave your office, you have your route mapped out. You know where you are going. You lose no motion or energy enroute. When you enter the sick room, you have the satisfaction of understanding that you will have a perfect record of your case, inscribed at the bed-side.

This record gives all physical and medical data—pulse, temperature, respiration, etc. It gives the name and address of the patient—indicates what the service was worth in money. It preserves the original of every prescription. From day to day this one-writing method continues. As payments are made, they are credited—and the balance always shows on the top slip in your office files—with compartments for every patient.

Your clinical record is perfect You can read up on any case in a few minutes. It guides you to other successes. It preserves your efforts by making your accounts collectable. It saves a wealth of time at the month-end in getting out statements. You have no books to keep—nothing to carry over in your memory. There isn't a physician or surgeon who has installed this system who would part with it for a dozen times its cost. It makes a good business man out of you.

We shall not attempt to tell you the complete story here. We have illustrated, description booklets and catalogues that explain. Send for the facts. Learn what other doctors say. Be open to conviction. We invite you now to investigate. You are the judge—the jury.

In addition, we carry a complete line of prescription blanks and other printed matter suitable for your needs. Ask us for figures and facts.

Ask NOW—TODAY

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Kindly send me full particulars about your American Case Record and System for Physicians and Surgeons.

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A PHYSIOLOGICAL STIMULANT AND TONIC "STEERO" BOUILLON CUBES

The well-known experiments of Pawlov tend to show that meat extracts have a distinct value in exciting the gastric secretion, so that the custom of beginning a meal with bouillon or soup would appear to be based upon sound physiological principles. A properly prepared and savory bouillon is not only grateful to the palate, but stimulates the appetite and aids the digestive process. It is for this reason, and their great convenience, that physicians will find the "STEERO" BOUILLON CUBES of material service in all conditions of impaired appetite and faulty digestion. They are prepared with extreme care from meat and vegetable extracts and skilfully blended and flavored to meet the demands of the most capricious palate. A cube dropped into a cupful of hot water makes a delicious bouillon that is stimulating and refreshing.

In acute exhausting diseases, and especially during the period of convalescence, as well as in chronic debilitating maladies, "STEERO" will prove a valuable addition to the diet as an appetizer and tonic.

SEND FOR A FREE VIAL

When you have a case where iodine, Oil of Wintergreen, Menthol and Alcohol are indicated, let us send you a vial of Iosaline for trial; it is clean, efficacious and pleasing to your patient. The Iosaline Company, 559 Broome Street, New York City.

SEND FOR THE BROCHURE

The Hormones and Hormone Therapy, especially the Peristaltic Hormone of Zuelzer, known as Hormonal, a specific physiological therapeutic agent in chronic constipation, intestinal atony and the post-operative forms of intestinal paresis, are subjects at present in the very foreground of interest.

Schering & Glatz, New York, have published a forty-page brochure, entitled "Hormone Therapy with Special Reference to Hormonal (Peristaltic Hormone—Zuelzer)" of which they will be pleased to mail a copy to every physician who makes request for the same.

Spirozol

7½% True Salicylic Acid in Oil Base that unites with the serum of the blood. Applied locally in rheumatism, etc. Strikes deep into living tissue wherever applied.

4-oz. by mail - - 60 cents

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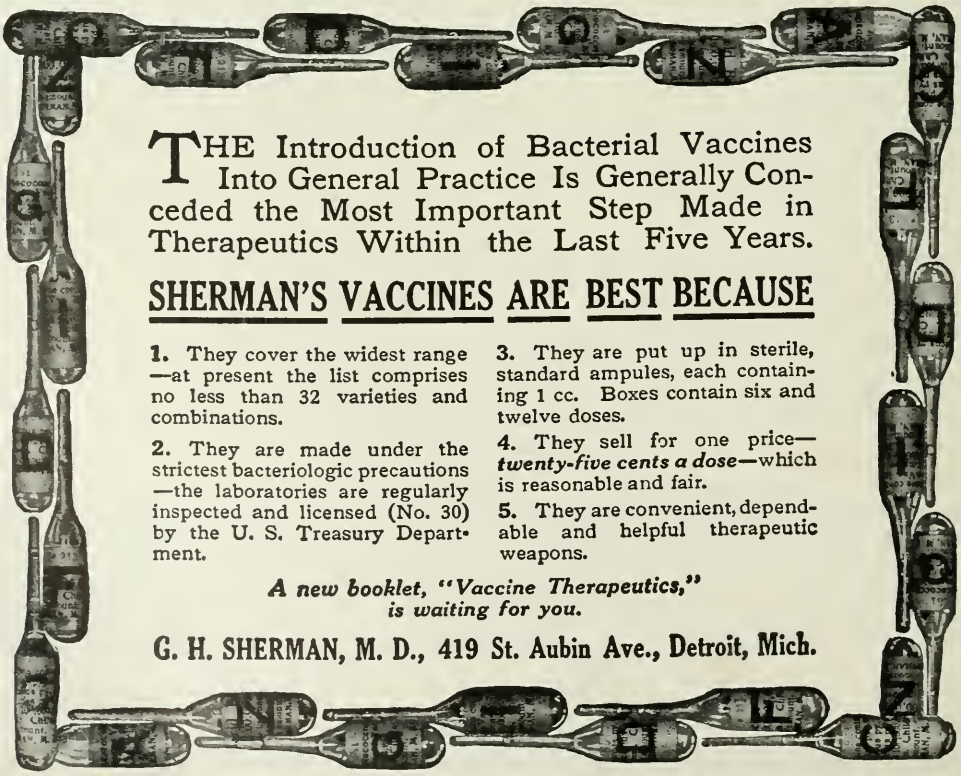

THE Introduction of Bacterial Vaccines Into General Practice Is Generally Conceded the Most Important Step Made in Therapeutics Within the Last Five Years.

SHERMAN'S VACCINES ARE BEST BECAUSE

1. They cover the widest range—at present the list comprises no less than 32 varieties and combinations.

2. They are made under the strictest bacteriologic precautions—the laboratories are regularly inspected and licensed (No. 30) by the U. S. Treasury Department.

3. They are put up in sterile, standard ampules, each containing 1 cc. Boxes contain six and twelve doses.

4. They sell for one price—***twenty-five cents a dose***—which is reasonable and fair.

5. They are convenient, dependable and helpful therapeutic weapons.

A new booklet, "Vaccine Therapeutics," is waiting for you.

G. H. SHERMAN, M. D., 419 St. Aubin Ave., Detroit, Mich.

BACTERINS

Bacterins (bacterial vaccines) are killed bacteria suspended in physiological salt solution. They stimulate the production of protective substances (antibodies) and are used to prevent or overcome bacterial infections.

Each bacterin is indicated for the infection caused by its corresponding bacterium; for instance, a staphylococcic bacterin is used for staphylococcic infection. Accurate diagnosis is therefore necessary.

For the general practitioner the use of stock bacterins is advisable because valuable time is thereby saved.

It is well recognized that mixed infections are usually present in infectious diseases. **"Mixed" and "polyvalent" (many different strains) bacterins are therefore becoming deservedly popular.** As regards their use, Polak states:

> "The mixed vaccines of reliable laboratories have given better results than when a single variety was used. This has been shown repeatedly in the blood picture when an autogenous vaccine of a single strain used in large doses up to 500,000,000 has failed to increase the leucocyte-count or diminish the polynuclear percentage, the mixed vaccines of several strains have promptly produced a marked leucocytosis. Even colon bacillus infections, such as the infection, of a pelvic hematocele by the colon bacillus, have yielded more promptly to mixed vaccines of polyvalent strains than when a single autogenous germ has been used." (*Journal American Medical Association*, November 25, 1911, p. 1738.)

The prophylactic value of bacterins is proved beyond question in typhoid fever, and preventive medicine suggests immunization against streptococcic, colon, staphylococcic, pneumococcic and tubercular infections by the use of their corresponding bacterins.

The results following the general use in the U. S. Army of typho-bacterin in protective vaccination against typhoid fever are little short of marvelous. "During the past three years 60,000 men completed the three inoculations; but twelve cases of typhoid fever developed during this time and no death occurred." (Phalen and Callison, *Medical Record*, December 9, 1911, p. 1203.)

We prepare the following:

Acne-Bacterin (Acne Vaccine)
Cholera-Bacterin (Cholera Vaccine)
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Influenza-Bacterin Mixed (Influenza Vaccine Mixed)
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Neisser-Bacterin (Gonococcic Vaccine)
Neisser-Bacterin Mixed (Gonococcic Vaccine Mixed)
Neoformans-Bacterin (Neoformans Vaccine)
Pneumo-Bacterin (Pneumococcic Vaccine)
Pneumo-Bacterin Mixed (Pneumococcic Vaccine Mixed)
Pulmonary-Bacterin Mixed
Pyocyano-Bacterin (Pyocyanens Vaccine)
Scarlatina-Bacterin (Scarlet Fever Vaccine)
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Staphylo-Bacterin Mixed (Mixed Staphylococcic Vaccine)
Staphylo-Acne-Bacterin (Staphylo-Acne Vaccine)
Staphylo-Albus-Bacterin (Staphylo-Albus-Vaccine)
Staphylo-Aureus-Bacterin (Staphylo-Aureus Vaccine)
Strepto-Bacterin (Streptococcic Vaccine)
Typho-Bacterin (Typhoid Vaccine)

Copies of Mulford's Working Bulletins mailed free upon request.
State bacterins in which specially interested.

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PNEUMONIA

Pneumonia is one of our most fatal diseases and certainly no ailment calls for greater painstaking attention and handling. While it is possible to safeguard the life of the patient if treatment is begun at the first sign of the disease, it is equally certain that the prognosis will be unfavorable where treatment has been deferred until the disease has advanced sufficiently to embrace an extensive area of the pulmonary tissue.

In the primary stage of pneumonia, Glyco-Heroin (Smith) excercises a calming, febrifuge and sedative effect. The remedy relieves the engorgement of the involved area and renders an advance of the disease to the second stage improbable.

The second stage, or that of consolidation, is marked by increased pain, more difficult breathing, weakened heart action and considerable exhaustion. On account of the deficiency of respiration due to the diseased state of the breathing passages, the blood supply is made insufficient. Glyco-Heroin (Smith) renders good service at this stage of pneumonia by sustaining heart action, thereby increasing blood supply and shortening the course and extent of the tissue-consolidation.

If the disease is permitted to advance, the consolidation becomes more widespread, the heart action is reduced to alarming limits and death may be the result. At this critical stage Glyco-Heroin (Smith) is of almost inestimable value, for it is a dependable means of sustaining the strength of the patient and conducting him safely through this most trying period.

A knowledge of the method of its use in pneumonia cases can be gained from those described hereafter.

Antityphoid Vaccine

We are now authorized to offer for general sale Antityphoid Vaccine, identical with that employed with such remarkable success in the United States Army. This vaccine not only offers a certain preventive, but a promising treatment for typhoid.

Write for Major F. F. Russell's most recent article on antityphoid vaccination in the United States Army

National Vaccine and Antitoxin Institute

"Oldest in America"

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FORMAMINT TABLETS

When dissolved in the mouth, liberate nascent Formaldehyde which reaches every part of the oral cavity. FORMAMINT is therefore superior to mouth wash, gargle, spray or local application in Tonsillitis, Pharyngitis, Ulceration, Inflammation, etc.

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HANSEN'S GLOVES

are best for the doctor, not only because they are good *driving* gloves, and keep his hands warm, but because they protect them *thoroughly* from injury, and from the cramped position of the ordinary clumsy gloves. Hansen's are "built like a hand" without binding seams. Their construction admits of perfect circulation and a flexibility that leaves the hand *free* in condition for any emergency. The

Dan Patch Driving Glove

—lined or unlined, with or without gauntlets, is only one example. There is the Cavalry Special, a mitten with one free finger—the auto gauntlet—all of selected parts of the best horsehide, but varying in weight, size and color. In the wide list you are certain to find just the glove you need.

The Hansen leathers are all *warranted* not to shrivel up nor shrink; they will not harden, crack nor peel. Washing in gasoline makes them like new and it will not matter if you get them soaking wet; they dry out soft and shapely.

FREE BOOK. Write us today for our free book, describing and illustrating all styles. A postal will do—just send your name and address.

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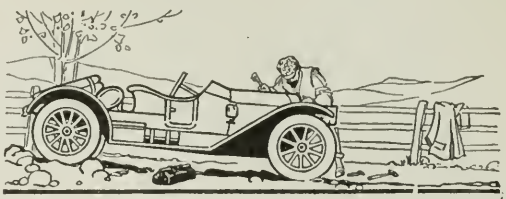


Racing with Death over Rough Roads

When a physician is racing in his car with death, time is important. And on rough roads safety is imperative. Naturally anything that will prevent delays or accidents to the doctor's car is especially valuable.

The Truffault-Hartford Shock Absorber insures **safety with speed.** At the same time it makes any car much more **comfortable** and greatly reduces the **cost of up-keep.** The

Truffault-Hartford SHOCK ABSORBER

controls both the contraction and the rebound of automobile springs, so that they always work within their **normal** limits acting as cushions instead of vibrators.

And they are the **only** shock absorbers that control springs properly—**without stiffening springs.**

For these reasons Truffault-Hartfords cut out the bouncing and the vibration which jolt passengers—rack engine and delicate mechanism—loosen bolts—throw wheels off the ground, tearing tires and lessening speed. With this device a broken spring is practically impossible and other accidents are negligible.

No matter what car you drive or what roads you travel, you will find Truffault-Hartfords an aid to safety and speed, a boon to comfort and a help in keeping down the expenses of motoring.

THE JUNIORETTE FOR LIGHT CARS

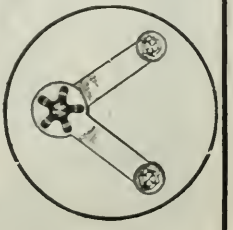
For all cars weighing 1200 lbs. or less the "Juniorette" is suitable. In design and material it is the same as the larger sizes. It is manufactured to meet the needs of cars like the Maxwell AA, Hupmobile, Ford, etc. $15.00 per set of four with fittings.

FOUR MODELS

SET OF 4		SET OF 4	
The Standard for cars over 2500 lbs. . . .	$60	**The Junior** for cars from 1200 to 1800 lbs.	$25
The Intermediate for cars from 1800 to 2400 lbs.	$45	"The Juniorette" (as described above).	$15

Write today for our new catalogue. It has information of value to YOU.

The HARTFORD SUSPENSION CO.
Edw. V. Hartford, Pres.
173 Bay Street, JERSEY CITY, N. J.



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CHRONIC LEUCORRHEA

By Dr. C. E. Brandenburg, New York City.

Fifteen months ago Mrs. X., came to me for treatment, giving the following history: Six years previous she had a miscarriage, since which she had been troubled with a profuse leucorrhea of a very foul odor. At her menstrual period she suffered greatly and flowed excessively. On examination the cervix was found to be nearly four times its normal size and so badly eroded as to have the appearance of a cancer and had been mistaken for such by one physician. The uterus was soft and boggy and very much enlarged. She had been to the hospital on two occasions. and each time had been curetted, but this seemed only to aggravate the general condition. For over a year I treated her with every means at hand, but to no purpose. I was making preparation for an operation, which would have meant the removal of the uterus, when my attention was drawn to Glyco-Thymoline and I determined to give it a thorough trial before operative measures were to be further introduced.

An intrauterine douche of Glyco-Thymoline in a 25-percent hot solution was administered and lamb's wool tampons saturated with pure Glyco-Thymoline were used. She began to improve from the first application. The leucorrhea became less and the odor disappeared entirely. The cervix took on a healthy look. The uterus decreased in size and became firm; in fact she is now nearly well after nine weeks' treatment with Glyco-Thymoline.

Velvet
THE SMOOTHEST TOBACCO
PERFECT COMFORT for the pipe-moment is right there in a tin of Velvet —the tobacco that smoothes the way.
The physician especially will appreciate the quality that is given to Velvet by its two years of aging—the mature mellowness of its smooth-burning, non-irritating perfection as a smoke.
Those choice middle leaves of Kentucky's best Burley—and the choicest of these—the Velvet kind—*do* smoke wonderfully well.
SPAULDING & MERRICK, Chicago
Full 2-oz. tin, at your dealer's
10c
Velvet
TOBACCO
WLS
1911

Chiclets

REALLY DELIGHTFUL

Increase the Flow of Saliva, consequently Improve the Digestion of Starchy Foods.

Their Enormous Popularity in America is due to the Dryness and Dustiness of the Atmosphere.

Chiclets keep the Mouth Clean and Aseptic, and Prevent the Excessive Consumption of Water and Other Liquids.

Used by Athletes of All Kinds to Control Thirst.

A Most Grateful Sialogogue in Fevers.

For Sale Everywhere. Samples, if you care for them, from

SEN-SEN CHICLET CO.

Metropolitan Tower

New York

The Sheldon Method in Spinal Tuberculosis

OWING to its easy application and removal the **Sheldon Appliance** is particularly adapted for use in Spinal Tuberculosis. This permits of examination of the back by the attending physician at any time and greatly facilitates the employment of baths, dressings and medication. The **Sheldon Appliance** provides proper support just where needed and gives a continual extension to the spine. It is comfortable to wear and will not irritate or worry your patient.

Each Order is Accepted Subject to a Thirty Day Trial

and the money is refunded should the appliance prove unsatisfactory. In this way you and the patient are protected against the possibility of procuring something that does not fully meet every requirement of the case.

Every **Sheldon Appliance** is made to individual measurements, taken according to directions on a chart we furnish and is guaranteed to fit and be right in every particular.

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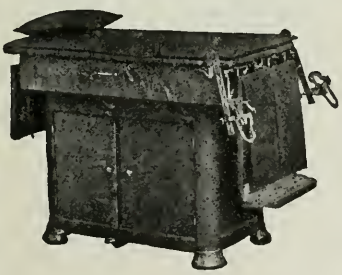

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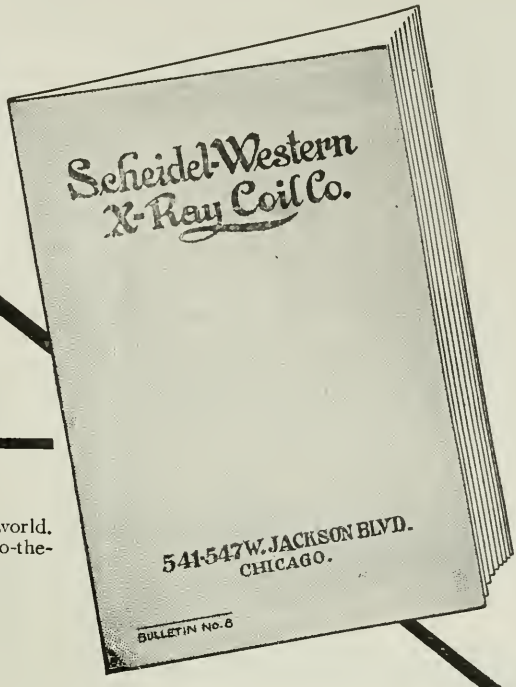

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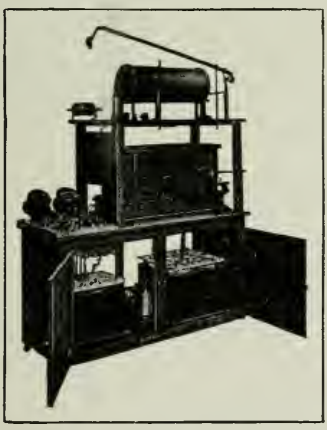

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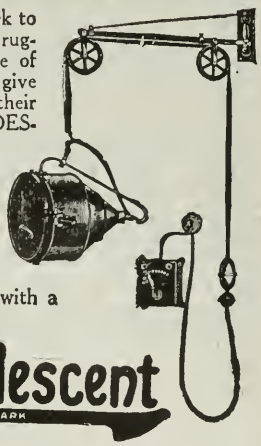

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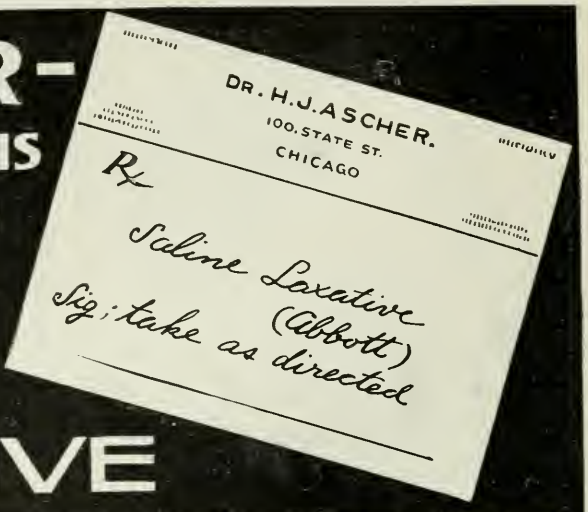

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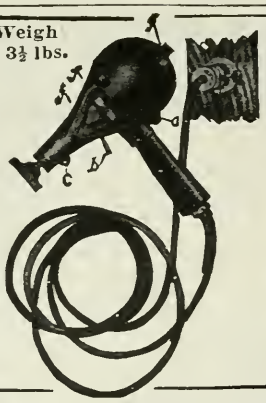

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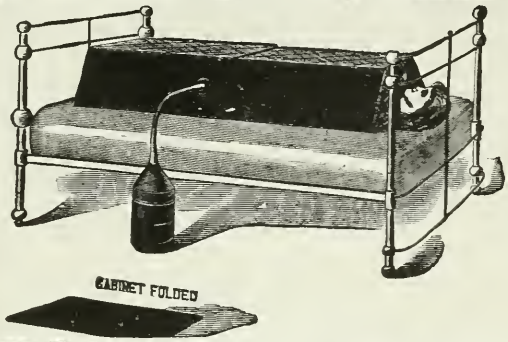

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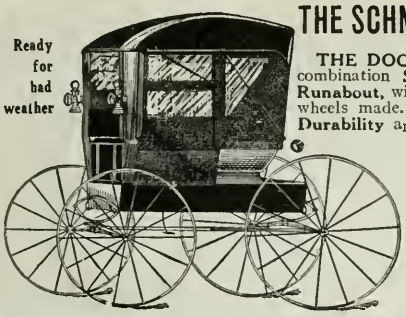

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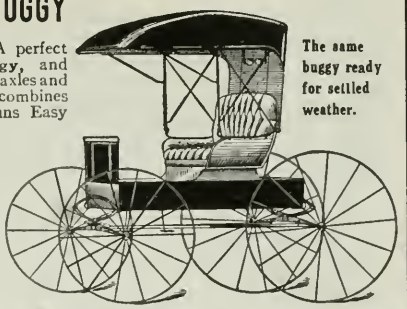

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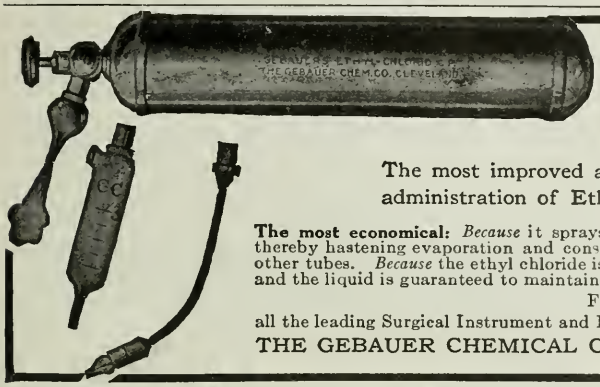

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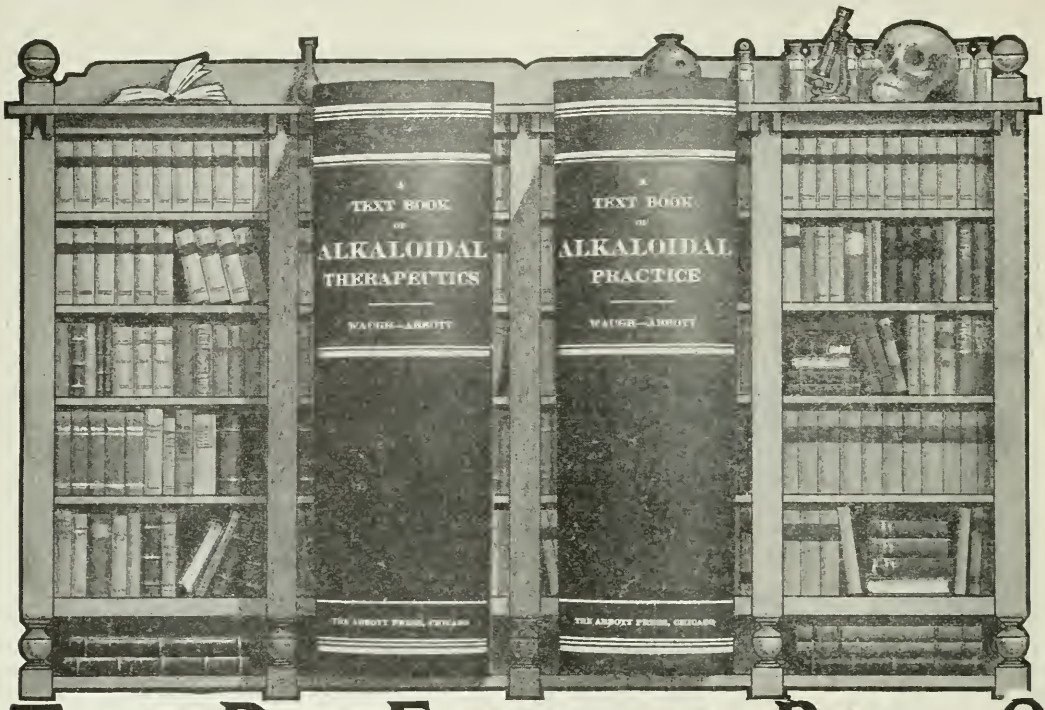

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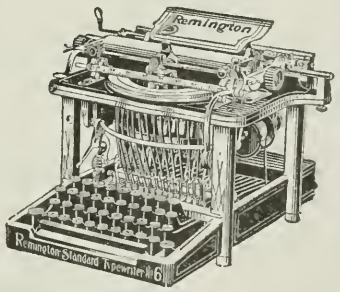

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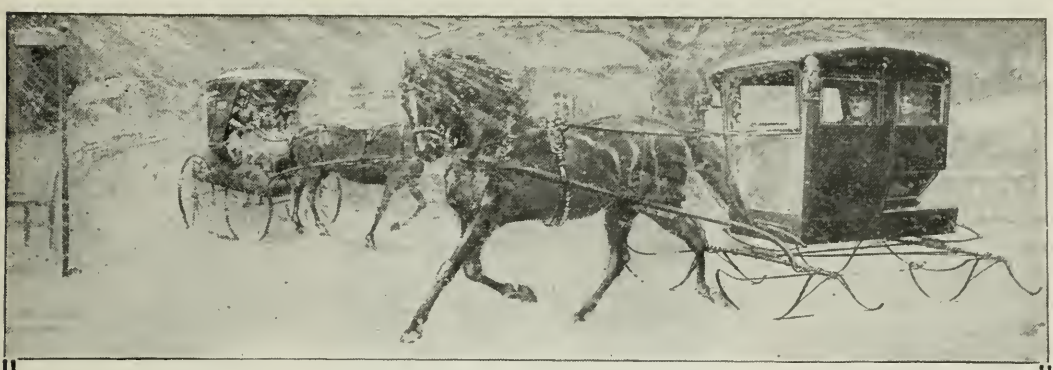

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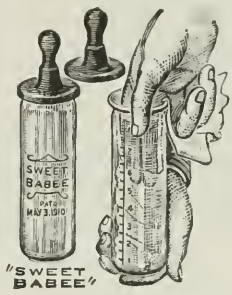

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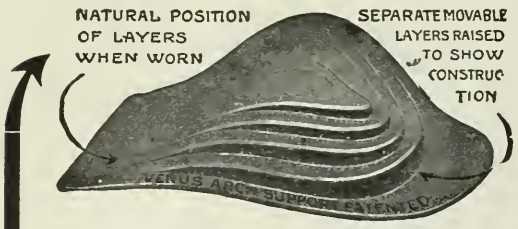
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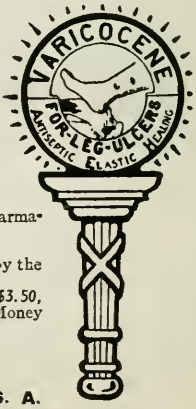

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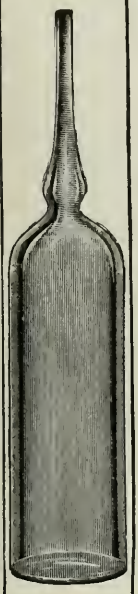

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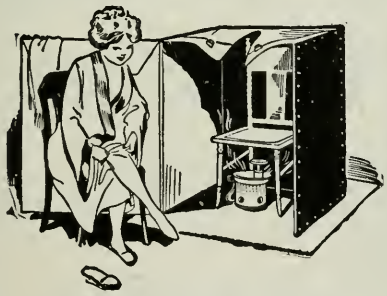

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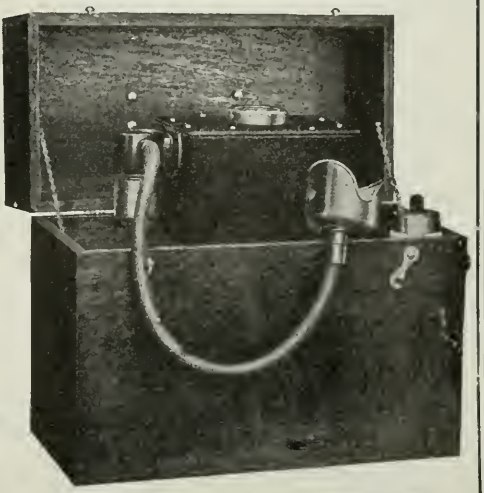

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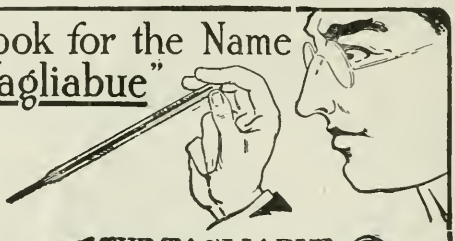

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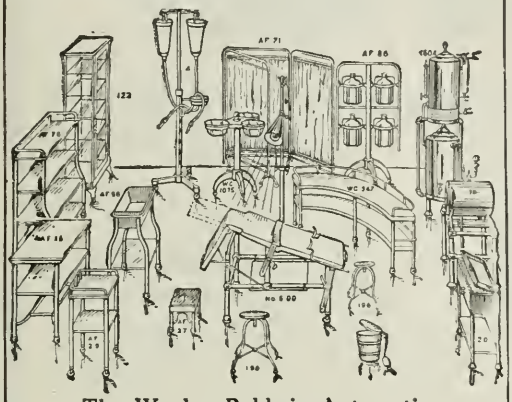

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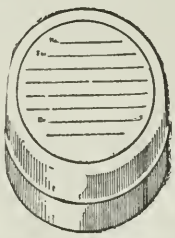

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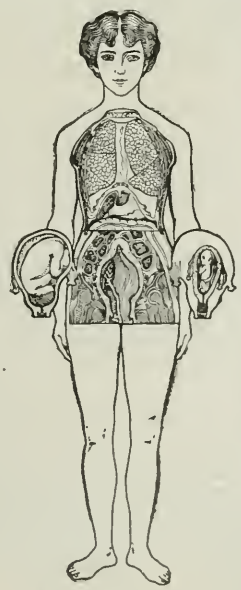

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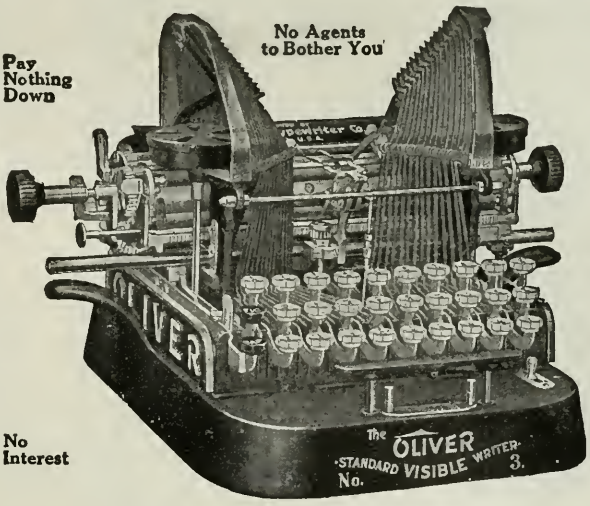

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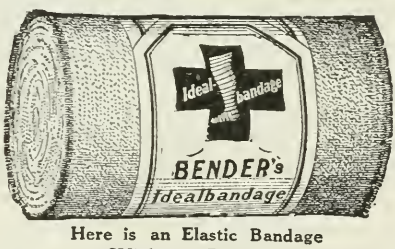

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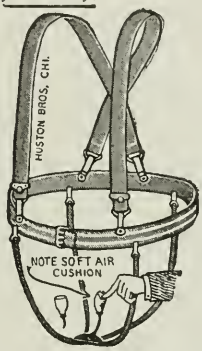

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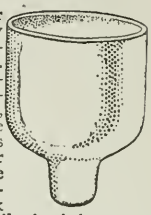

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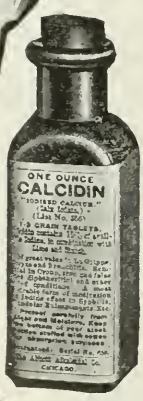

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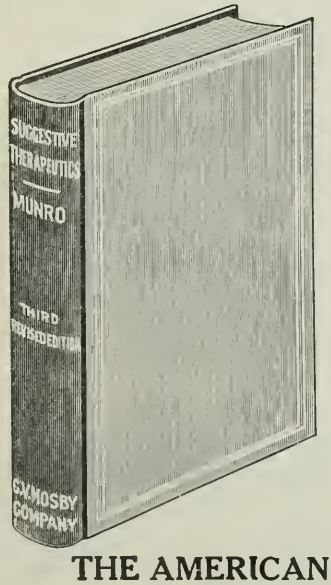

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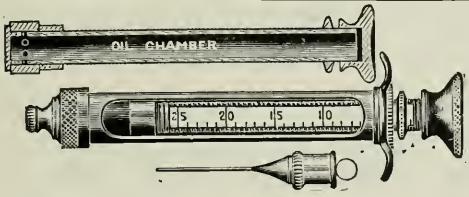

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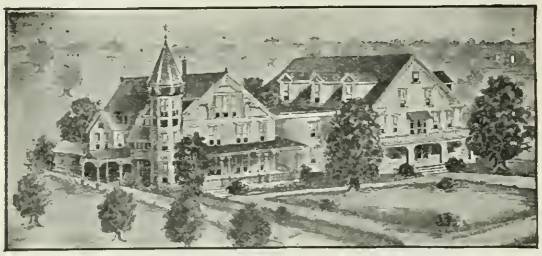

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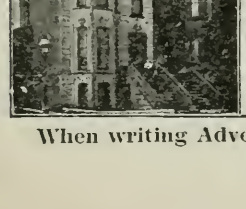

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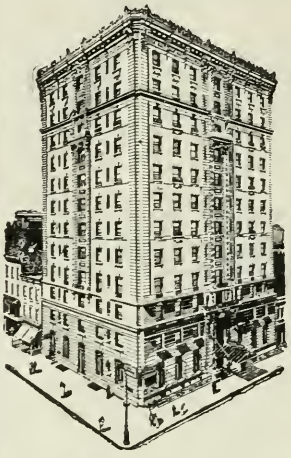

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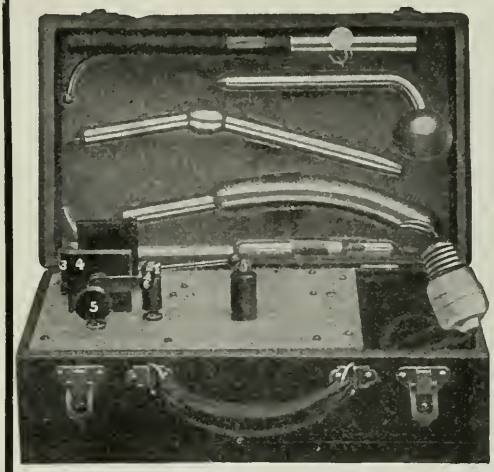

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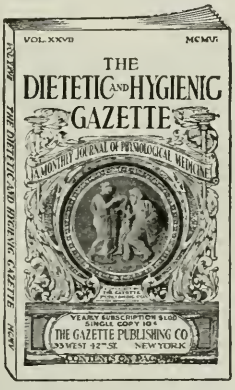

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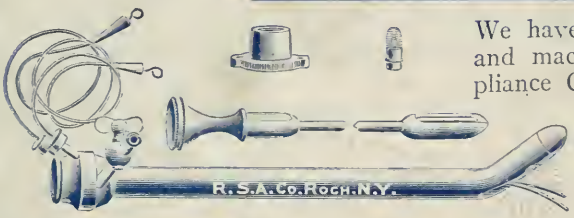

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